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The Changing Outlook for Pemphigus

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THE prognosis of pemphigus appears to have been improved with the advent of steroid therapy. There was no effective treatment for this disease prior to cortisone and corticotropin and, although not curative, corticosteroids have proved to be the most effective and life prolonging therapeutic agents available.

Nelson and Brodey[1] reported 28 patients who were given steroid therapy for pemphigus for the period 1949 through 1954. Of these patients, 75 per cent were still living in 1954 and only two were seriously restricted in their activities, while one had maintained a clinical remission for 25 months without steroid therapy. The remainder were receiving the drug in varying dosages. Two patients died as a result of major thromboembolic accidents during treatment and the remaining seven who died probably received inadequate amounts of hormonal treatment, as judged by present standards. Nelson and Brodey also found that, aside from the thromboembolic episodes, the most serious side effects of long term corticosteroid therapy in these patients, were psychic disturbances, osteoporosis, and the reactivation of peptic ulcers.

Combes[2] described the results of 151 cases of pemphigus treated during 1945 to 1954. For the five year period to 1950 (when steroid therapy was begun) the death rate was 65 per cent in patients with pemphigus vulgaris and, with the use of hormones, mortality was reduced to 28.5 per cent. Of 15 cases of the foliaceous type in this series, only two died; among eight patients with the vegetans type, one died. Among 26 private patients, the death rate was 8 per cent, which Combes believes is due to the care exercised in administration of steroids and supportive therapy.

We have attempted to evaluate the general physical condition and mental outlook of patients having pemphigus of the vulgaris, vegetans, foliaceous, and erythematodes types. The cases are divided into three groups: the 1945-50 group includes patients treated prior to the use of steroid therapy; the 1951-54 group includes some patients who were given small amounts of corticotropin (ACTH); and the third group, for the period 1955 to date, consists of patients who received adequate corticotropin or cortisone therapy. Because of increased familiarity with the use of these steroids, the improved results were obtained during the last year. Our tabulations are shown in Table 1.

This tabulation reveals that 55.9 per cent of the patients in the first group (1945-50) died in the hospital while under treatment and 38.5

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TABLE 1.

TYPES OF PEMPHIGUS

Years	Sex	Race	Vulgaris	Vegetans	Foliaceous	Erythematodes	Total Cases	Died	Average Age: Years
1945-	M	N	2	0	0	0	2	2	61.5
1950	M	W	13	1	1	0	15	7	67.2
	F	N	4	0	0	0	4	1	59.5
	F	W	13	0	0	0	13	9	58.7
							34	19	
1951-	M	N	6	1	0	0	7	2	44
1954	M	W	7	0	1	0	8	3	61.5
	F	N	4	0	0	0	4	2	47
	F	W	11	0	0	1	12	3	64
							31	10	
1955-	M	N	3	0	0	0	3	1	41.3
	M	W	6	0	0	0	6	0	56
	F	N	0	0	0	0	0	0	—
	F	W	4	0	0	1	5	2	69
							14	3	

per cent in the second group (1950-54) died; an improved mortality rate of 17.4 per cent. By 1954, corticotropin and cortisone were readily available for the treatment of pemphigus. In that year, the mortality rate was 33.3 per cent for nine patients having pemphigus vulgaris. Among the three who died, one was an elderly woman who succumbed to a coronary occlusion. There were no cutaneous lesions at the time of her death and she had been receiving a maintenance dose of 100 mg. of cortisone daily. In the last group (1955-56), there were 15 patients, three of whom died. Therefore, the mortality rate decreased 11 per cent over the previous year and 41.6 per cent over the periods prior to steroid therapy.

At present, pemphigus patients are given an initial dose of 40 units of corticotropin gel twice daily and 100 mg. of cortisone, three times a day. In addition, the patient is given a low sodium diet, supplemental potassium, ascorbic acid, a multivitamin preparation, and diuretics and blood transfusions, when indicated. Antibiotics, which are changed every seven days, also are administered. This therapy usually is begun with penicillin, followed by tetracycline, sulfadiazine, erythromycin, and again, penicillin. In severe infections, the organism is cultured and its sensitivity determined. Patients having persistent open lesions or those requiring higher dosages of corticosteroid (250 mg. cortisone or 20 units ACTH gel) daily for maintenance therapy, also are given antibiotics or sulfadiazine.

The administration of corticotropin and cortisone is increased or decreased as required, and the corticotropin discontinued when the patient can be maintained on a daily dosage of 600 mg. or less of cortisone. The highest dosage administered in this series was 160 units of corticotropin gel and 1,000 mg. of cortisone, over a ten day period.

Laboratory studies, including serum sodium, potassium, and chloride determinations (by the flame photometer method) are done weekly on these patients. The fasting blood glucose is determined every two weeks and, more frequently, if the urinary sugar exceeds ¼ per cent (Clinitest). Roentgenograms of the lower spine and bony pelvis are made at least every six months. These examinations are performed on all hospitalized and out-patients who are receiving steriod therapy. Hospitalized patients usually are discharged for out-patient care when a daily maintenance dose of 150 mg. of cortisone or less is required, provided the patient is in good physical condition. Out-patients are instructed to maintain the low sodium diet and to continue the supplemental potassium (2 gm. potassium chloride). They also are requested to record their body weight weekly and to report immediately any gastrointestinal disturbance.

All out-patients are observed weekly or biweekly in a clinic devoted entirely to patients receiving steroid therapy. Attendance at this clinic is excellent; during the past three years only one patient failed to attend. There are probably several factors to account for this high

attendance rate: (1) the free provision of costly medications; (2) the careful general medical supervision of patients receiving steroid therapy (the advantage of early diagnosis of exacerbations, both as to prognosis and length of hospitalization, are explained to the patient); and (3) the necessity and purpose of frequent laboratory examinations is stressed.

Despite the high dosages of corticosteroids administered and the long periods of time involved, there were no instances of perforating gastric or duodenal ulcer or of pathological fracture in this series of cases.

Case 1: A 57 year old woman with pemphigus vulgaris, had developed numerous small bullae on the mouth, axillae, chest, and legs during the preceding three months. She had been given small doses of corticotropin for a period of two weeks but the bullous eruption became generalized and impetiginized and she was then hospitalized. She was given broad-spectrum antibiotics (tetracycline and clortetracycline) for three days and, when the infection was controlled, 40 units of corticotropin were administered intravenously each day. After the cutaneous lesions improved, corticotropin gel was given; the maximum dose being 120 units a day. After four months of therapy she was discharged from the hospital on a maintenance dose of 150 mg. of cortisone daily. Subsequently, two mild exacerbations of the disease occurred which were controlled by 300 mg. cortisone and 40 units corticotropin daily. All steroid therapy was discontinued after thirteen months and she has remained free of cutaneous lesions for more than two years.

Case 2: A 56 year old man had pemphigus vulgaris for eleven months prior to hospital admission at which time he presented a generalized bullous eruption. He was given 80 units of corticotropin gel daily and clortetracycline, 1 gm. daily. He developed a severe exacerbation of the disease six months later and his general physical condition deteriorated gradually despite the administration of 160 units of corticotropin gel and 250 mg. of cortisone daily. The corticotropin was then discontinued and the cortisone increased 100 mg. each day until he was receiving 900 mg. of cortisone daily. He improved steadily and after one year of therapy was discharged from the hospital, free of lesions, on a maintenance dose of 150 mg. of cortisone daily. This therapy was discontinued after ten months but the following month he developed a few small bullae on the scalp. There was rapid improvement with 40 units of corticotropin gel daily.

Case 3: A 36 year old Negro with pemphigus vulgaris had developed several bullae on the neck and in the mouth during the past three weeks. He did not improve on 300 mg. of cortisone daily but showed improvement with 80 units of corticotropin daily. He left the hospital after nine weeks, free of lesions. However, three weeks later he developed bullae in the mouth and on the neck and chest. Cortisone and corticotropin therapy was resumed. He was hospitalized for three months and continued on cortisone 150 mg. daily for the next four months. All therapy was then discontinued and he was free of lesions eight months later.

Case 4: A 62 year old man who had pemphigus vulgaris for several years was admitted with three quarter dollar sized bullae on the penis, leg, and conjunctivae. He had been receiving 20 units of corticotropin gel twice weekly. He showed rapid improvement with 300 mg. of cortisone daily and was discharged on a dosage of 150 mg. a day. This dose was reduced gradually and finally discontinued entirely. He has been free of lesions for the past five months.

Case 5: A 76 year old woman with pemphigus vulgaris had developed crops of bullae on the chest, trunk, and extremities, during the previous 18 months. On admission to the hospital she presented a generalized bullous eruption and was febrile and moribund. Treatment with 80 units daily of corticotropin gel and 1 gm. tetracycline daily resulted in some improvement of her general physical condition and the ability to ingest food. However, one month later she developed convulsions, lapsed into coma, and died within a few hours. Death was ascribed to "massive cerebral hemorrhage" although autopsy was not performed.

Case 6: This 30 year old Negro had large bullae involving the mouth, scalp, arms, chest, back, and abdomen. Following a diagnosis of pemphigus vulgaris, he was given a maximum dose of 120 units of corticotropin gel and 250 mg. of cortisone daily in addition to broad-spectrum antibiotics. He improved steadily and was discharged from the hospital, after five months, on a daily maintenance dose of 150 mg. cortisone. The following month he was readmitted with a severe exacerbation of the disease and was given a maximum dose of 120 units corticotropin gel and 500 mg. of cortisone daily. The course of the disease was erratic with several periods of improvement and several severe exacerbations. He showed improvement until one year later when he suddenly became demented, collapsed, lapsed into coma, and died the same day.

Case 7: A 70 year old woman with pemphigus vulgaris had diffuse and generalized bullous lesions. She responded favorably to intraveneous injections of 40 units corticotropin and intramuscular injections of 80 units corticotropin gel daily. She was discharged on a maintenance dose of 150 mg. cortisone but was readmitted eight months later with a mild exacerbation of the disease. She was then given a maximum dose of 80 units corticotropin gel and 300 mg. cortisone daily, which was decreased gradually until she received 150 mg. of cortisone daily. Meanwhile, she remained free of cutaneous lesions. Ten months later she was again hospitalized with a blood pressure of 110/60, pulse rate of 116, and respirations 40 per minute. The electrocardiogram was compatible with a coronary infarct and she died three days later.

Case 8: A 54 year old man first presented a crusted, infected lesion of the scalp which responded favorably to treatment with wet dressings and antibiotic ointments. There was scarring beneath these crusts. Two

weeks later he developed bullous lesions of the scalp, right eye, penis, and left leg. A diagnosis of pemphigus vulgaris was established and treatment consisting of a maximum daily dosage of 40 units of corticotropin gel and 250 mg. of cortisone were administered. He was discharged on cortisone therapy after two weeks of hospitalization and, 15 months later, he was receiving 25 mg. of cortisone daily, although he was free of lesions.

Case 9: This seriously ill, 43 year old man had a generalized bullous eruption. He had been hospitalized for 70 days in another institution where he had been given corticotropin and hydrocortisone therapy for pemphigus vulgaris. His initial treatment consisted of 40 units of corticotropin, administered intraveneously each day and large doses of tetracycline. The course of the disease was erratic and at one time he was receiving 160 units of corticotropin and 1,000 mg. of cortisone daily, for a period of 10 days. He responded slowly to therapy and was discharged six months later on a daily dose of 150 mg. of cortisone. Two weeks later he returned to work and has worked steadily since that time. At present he is receiving 75 mg. of cortisone daily and is free of cutaneous lesions.

Case 10: A 58 year old male with pemphigus vulgaris presented bullous lesions of the legs, chest, face and mouth which had been present for ten weeks. He responded well to initial treatment consisting of 80 units corticotropin gel and 300 mg. of cortisone daily. After eight weeks he was receiving only 150 mg. of cortisone daily but four days later he developed three small bullae on the ankle and the dosage was increased to 300 mg. a day. The dosage was gradually decreased and, one month later, he was again receiving 150 mg. of cortisone daily and was discharged ten days later on this dose.

Case 11: A 62 year old man with pemphigus vulgaris presented a generalized bullous eruption which had begun three months previously as a cutaneous eruption of the groin. Large bullae had been present on the body and in the mouth for two weeks. The cutaneous lesions responded favorably to intravenous injections of 40 units corticotropin and 300 mg. oral cortisone daily although several remissions occurred when the dosage was decreased. Cortisone subsequently was discontinued and he was given a maintenance dose of 40 mg. of prednisone daily. This dosage has been reduced to 20 mg. a day, which appears to be the minimum dosage required to control his disease.

Case 12: A 58 year old man having pemphigus vulgaris presented a bullous eruption involving the scalp, chest, abdomen, and mouth. He responded well to treatment with 80 units of corticotropin and 200 mg. of cortisone a day. This dosage was gradually decreased until he was receiving 100 mg. of cortisone daily and he was discharged two months later on this dosage. Six months later, a few small bullae developed in the pharyngeal mucosa and a crusted lesion on the forehead. This eruption was controlled with 200 mg. of cortisone daily. Today, 18 months later, the crusted lesion on the forehead is still present and the present dosage of cortisone is 50 mg. per day.

Case 13: A 65 year old woman presented an erythematous crusted eruption on the face, ears, sternal region, portions of the groin, and the sacral areas. There were several vesicles and small bullae. The cutaneous eruption did not respond to local therapy of an antibacterial and antiseborrheic nature. Following a diagnosis of pemphigus erythematodes, she was treated with corticotropin gel 80 units daily as well as hydrocortisone and antibiotic ointments locally. She responded well to therapy and was discharged two months later on a maintenance dose of 75 mg. of cortisone daily. This dosage was reduced to 25 mg. two months later and the following month only erythema of the center of the face and sternal region remained.

Case 14: A 77 year old woman was admitted with a moderately pruritic vesicular eruption of the arms and thighs. Histologic examination revealed a non-acantholytic bullae and a diagnosis of dermatitis herpetiformis was made. She did not respond to treatment with sulfapyridine and 60 units of corticotropin daily was then administered. She improved rapidly and was discharged the following month on a maintenance dose of 100 mg. of cortisone daily. However, two months later bullae had developed on the arms, legs, groin, and chest. Histological examination then revealed intra-epidermal bullae with acantholysis, and a diagnosis of pemphigus vulgaris was made. She responded favorably to treatment with corticotropin gel 80 units daily and cortisone 300 mg. daily, and was discharged four months later on a maintenance dose of 30 mg. of prednisone a day. Three months later she was receiving 15 mg. prednisone a day and is free of lesions.

SUMMARY

The outlook for patients with pemphigus is more favorable today than in the past. Statistics of patients having pemphigus of the vulgaris, foliaceous, vegetans, and erythematodes type, who were hospitalized during the period of 1945 to date, are presented. The increased survival rate of these patients since the introduction of corticotropin (ACTH) and cortisone therapy is discussed.

Case histories of patients who were given corticosteroid therapy, from 1954 to date, are summarized. These results appear to indicate that it is essential to administer corticosteroids over long periods to obtain the ultimate benefit from these drugs. The immediate improved outlook of these patients is excellent with this type of therapy.

REFERENCES

1. Nelson, C. T. and Brodey, M.: Cortisone and Corticotropin Treatment of Pemphigus, Arch. Dermat. 72:495 (Dec.) 1955.
2. Combes, F. C.: In Discussion on Nelson and Brodey (1).

Treatment of Recurrent Cancer of the Cervix

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THE CERVIX is the most frequent site of malignancy in the female genital tract. Radiation therapy has been considered the method of choice in the initial treatment of the disease. In recurrence or persistence of the cancer a second or even a third course of radiation therapy has been employed in an attempt at control.

It is difficult to make a direct comparison between radiation therapy and surgical treatment of recurrent cancer of the cervix because the radiation therapist's evaluation of the disease is based upon a clinical impression prior to treatment whereas extent is based upon the microscopic finding of cancer in the surgical specimen. Reports in the literature dealing with cervical cancer deal largely with previously untreated cancer; and the results have been based on the League of Nations classification, which provides for only *untreated* cases.

In 1937, Meigs of Boston embarked upon a progam of panhysterectomy and pelvic lymphadenectomy for the treatment of selected cases of cervical cancer, including recurrent and untreated cases. The provision of a surgical specimen made possible an accurate evaluation by the pathologist of the extent of viable cancer in the pelvic lymph nodes. In a series of 231 cases of infiltrative cervical cancer cases reported by Meigs[1] it was found that in stage I (disease clinically confined to the cervix) 18 per cent had metastatic disease to pelvic lymph nodes; and of 109 cases in stage II (disease clinically confined to the cervix and upper vaginal canal) 40 per cent had metastatic disease to pelvic lymph nodes.

The use of ionizing radiation is designed to treat disease still confined to the accessible areas [cervix and upper vaginal canal]. Extension of cancer into pelvic lymph nodes beyond the paracervical and paravaginal areas cannot be sterilized by the present methods of radiation treatment.

Late radiation effects upon the urinary tract were reported by Everett, et al.[2], following a well planned and executed course of ionizing radiation for cervical cancer. They were able to study 33 patients in whom pre- and post-treatment urological tract studies had been carried out. Of the 33 patients studied, 16 [48.4 per cent] showed some evidence of ureteral obstruction; and 18 [54.5 per cent] showed some type of bladder lesion. In only about 15 per cent were the ureteral obstructions sufficiently severe to be of clinical importance; and in only about 20 per cent were the bladder lesions of serious clinical significance.

A classification for cervical cancer cases treated surgically was proposed by Meigs and Brunschwig[3] in 1952. This classification is based upon the pathologist's findings of cancer in the surgical specimen. Adenocarcinoma of the cervix and "stump" cancer are provided for in this classification. There is no provision for noninfiltrative cancer, which was intentionally excluded. The classification, in brief, is:

Class A—Cancer confined to the cervix.

Class B—Cancer extends into the lower uterine segment and/or upper third of vagina.

Class C—Cancer extends into parametrial tissue and/or metastasis to parametrial lymph nodes and/or ovaries.

Class D—Metastasis to hypogastric and/or obturator and/or external iliac lymph nodes.

Class E—Extension of cancer into bladder and/or rectum, with or without lymph node metastasis.

It has long been recognized that in most persons dying of uncontrolled cervical cancer, the disease was still confined to the pelvis. This has been substantiated by the study of autopsy material in both treated and untreated cases.

Metastasis from the cervix in cases of squamous cancer follows a fairly uniform pattern of distribution in the pelvic lymph nodes before extending outside the pelvis. The earliest site of lymph node metastasis is to the paracervical and paravaginal lymph nodes, followed by the

obturator nodes and the hypogastric chain of lymphatics. Henrickson[4], in a careful necropsy study of 41 patients with carcinoma of the cervix, feels that nodes in the first echelon (the "primary" group) usually are involved before metastasis extends to the secondary group. The successful surgical approach to this problem of recurrent cervix cancer is predicated upon this pattern of distribution.

It is worthy of note that three cases in Henrickson's series, in clinical stage I, died of uremia secondary to ureteral obstruction, the longest survivor living 24 months after the completion of radiation therapy. These three cases are mentioned to point out that they were still amenable to "cure" by hysterectomy and pelvic lymphadenectomy, with diversion of the urinary tract.

In a review of 169 necropsies of treated cervix cancer reported by Rojas and Meigs[5], cancer was still confined to the pelvis in 77.6 per cent. Their tabulation of causes of death showed that ureteral obstruction and uremia occurred in 78 of the 169 cases [46.1 per cent]; and that perforation and peritonitis occurred in 38 cases [22.4] per cent. Fistulas were present in 89 of the 169 cases [52 per cent]. Many of the fistulas were due to radiation necrosis and some, to cancer. This series demonstrated the futility of reirradiation for recurrent disease. It also shows the natural history of radiation treated but uncontrolled cervical cancer, of which 77.6 per cent of the cases studied remained confined to the pelvis.

Cases of cervical cancer which had recurred after either previous radiation or previous surgery "in an attempt to cure," with survival from 4 years to 5 years and 10 months, were reported by Brunschwig.[6] The recurrent cases were tabulated from his report based on the surgical classification. Untreated, or "fresh," cases were excluded as were those in which viable cancer, although demonstrated by biopsy prior to surgery, was not found in the surgical specimen. It is of interest to note that although no viable cancer was demonstrated in the nine cases where recurrence was limited to the cervix, two of these patients [2/9ths or 22 per cent) died of the disease despite the absence of demonstrable tumor in the specimen submitted to the pathologist.

Recurrent Cervical Cancer

	Number	Living	Died	
Class RA	9	5	4	
SRA	3	3	0	
Total	12	8	4	— 8/12 or 66%
Class RA_o	8	6	2	
SRA_o	1	1	0	
Total	9	7	2	— 7/9 or 78%
Class RB	6	2	4	— 2/6 or 33%
Class RC	5	0	5	
SRC	1	1	0	
Total	6	1	5	— 1/6 or 16.6%
Class RD	3	1	2	
SRD	1	0	1	
Total	4	1	3	— 1/4 or 25%
Class RE	28	6	22	
SRE	6	1	5	
SE	2	1	1	
Total	36	8	28	— 8/36 or 22%

Total
(Excluding A_o cases)

Class A	12	8	4	— 8/12 or 66%
B	6	2	4	— 2/6 or 33%
C	6	1	5	— 1/6 or 16.6%
Total	12	8	4	
D	4	1	3	— 1/4 or 25%
E	36	8	28	— 8/36 or 22%
TOTAL	64	20	44	—20/64 or 33%

Prefixes:
R—previous radiation in an attempt to "cure"
S—previous surgery in an attempt to "cure"
$_o$—indicates cancer was present in the cervix by biopsy, but not found in the surgical specimen, e.g., A_o

Class E constituted more than half the total of all recurrent cases. These required either partial or total pelvic exenteration. The surgical mortality (defined as death within 30 days of operation) for 21 cases requiring anterior partial exenteration and 40 cases requiring total

pelvic exenteration, a total of 61 exenterations, with 15 deaths, was 25 per cent. Eight, or 22 per cent of the group, are without evidence of disease from 4 years to 5 years and 10 months after surgery.

	Number	Surgical Mortality
Anterior Partial Pelvic Exenteration	21	5
Total Pelvic Exenteration	40	10
Total	61	15—15/61 or 25%

If the disease does not require either partial or total pelvic exenteration, the operative mortality is no higher than that for panhysterectomy without pelvic lymph node dissection. In a group of 157 cases treated by panhysterectomy and pelvic lymphadenectomy, there was one death, or an operative mortality of .63 per cent. Panhysterectomy with pelvic lymphadenectomy carries an eight to 10 per cent incidence of complications, chiefly of the urinary tract. Ureteral fistulas account for the majority of the complications; the rest are the result of bladder dysfunction extending beyond the period of hospitalization. Bladder dysfunction is consistent with the lymphadenectomy and deperitonealization of the pelvis and is temporary.

OPERATIVE PROCEDURE

The preoperative preparation of the patient with recurrent cervical cancer includes evaluation of the urinary tract by pylography and cystoscopy. Cystoscopy may be omitted if there is no possibility of bladder involvement by either tumor or radiation damage. Bowel preparation consists of mechanical cleansing of the lower bowel by catharsis for three days prior to surgery. The use of antibiotics has been found to be less effective than mechanical emptying.

Preoperative hematic studies and base-line chemistries are obtained. Blood volume studies may be indicated; and if so, the blood replacement is carried out prior to surgery, correcting the red cell mass deficit within 200 cc. of the patient's calculated ideal red cell mass. The method of calculating[7] the so-called normal when there are obesity or weight loss correction factors to compute may not be absolute, but it is practical. It has been our experience that if a patient's red cell mass is within 200 cc. of his calculated ideal, his blood replacement has been adequate. Six pints of blood are made available on the morning of operation.

The anaesthetic agents used, unless contraindicated, are Pentothal sodium® and gas-oxygen-ether. An endotracheal tube is passed at the time of induction. Curare-like drugs are used to obtain relaxation at the time of exploration and closure.

After entering the abdominal cavity and ascertaining by palpation and visual inspection that the disease does not extend above the pelvic brim, one proceeds with pelvic lymphadenectomy and hysterectomy. Complete deperitonealization of the pelvis will be included with the pelvic lymph node dissection below the pelvic brim. A narrow portion of parietal peritoneum is preserved and left attached to the ureters as they are dissected down to the infundibular portion of the bladder. The preservation of the blood supply when "stripping" the ureters is of paramount importance. This, however, is not done at the expense of leaving disease behind. Only after identifying and freeing the ureters from the level of bifurcation of the common iliac vessels to the bladder should one proceed with the lymph node dissection.

The external iliac chain of nodes, with their surrounding fatty and areolar tissue, are removed from the femoral canal distally, to the bifurcation of the common iliacs, proximally. The hypogastric lymphatic chain is removed, as well as the nodes and tissue below the bifurcation of the aorta and overlying the inferior vena cava. As the dissection is carried deeper into the pelvis, the obturator nerves are identified and stripped of their surrounding fatty and areolar tissues along their course and in the obturator fossae. The supralevator fascia is wiped clean of its overlying areolar tissue and is swept medially toward the uterus and vagina. The vaginal cuff is developed both anteriorly and posteriorly. The round ligaments are cut at their point of entrance into the canal of Nuck, the infundibulopelvic ligaments and their vascular contents are isolated and divided at the pelvic brim, and the uterosacral ligaments are divided at their point of origin. The vaginal cuff is divided well below the area of disease, to permit an adequate margin of resection. The entire specimen, with the lymphatic dissection, is then removed.

At the time of trimming the base of the blad-

der, prior to freeing the bladder from the vagina, there will be bleeding which will continue until the specimen is removed and the pelvis is tightly packed with laparotomy pads. Injury to the ureters must be avoided at this time.

The bleeding points are controlled with ligatures; but oozing from the deperitonealized pelvis will persist. The upper cut end of the vagina is left open, and a running hemostatic suture is used to control the bleeding from the vaginal cuff. Two pelvic rolls are placed carefully and firmly into the denuded pelvis, the distal ends of the packs having first been placed into the open vaginal canal. The ureters are lying free above the pelvic rolls.

Blood loss during surgery is estimated by measuring the volume of blood collected in the suction bottle and by weighing the used laparotomy pads. During the operation blood is replaced as the loss occurs. A Foley catheter is left in the bladder postoperatively, and the patient is placed on straight bottle drainage. A retention catheter is left in the bladder until the urinary residual is 100 cc. or less.

The pelvic packs are removed on the second postoperative day, under intravenous Pentothal sodium. Correction of any blood deficit is carried out in the postoperative period. The period of hospitalization is about twelve to fourteen days. Bladder dysfunction would not necessarily require prolonged hospitalization. Antibiotics and urinary tract antiseptics are used in the postoperative period.

Partial or total pelvic exenteration will not be considered at this time.

COMMENTS

The surgical program for treatment of recurrent cervical cancer cases has been reviewed, and the value of the classification of all infiltrative cervix cancer cases, based upon the pathologist's findings of cancer in the surgical specimen, has been emphasized.

The studies of autopsy material from patients dying with uncontrolled cervical cancer have shown that in a high percentage of these cases, the disease was confined within the pelvis. A well documented urological study of patients treated with ionizing radiation showed significant damage in 15 to 20 per cent of the cases studied. A study of 64 cases of recurrent cervical cancer followed from four years to five years and ten months, treated by a surgical program, yielded 20/64 [33 per cent] free of disease. The surgical morbidity of recurrent cervix cancer is 8 to 10 per cent and results primarily from urinary tract complications.

The surgical program has been described briefly. It has been this author's desire not to minimize the magnitude of the operation, despite the low operative mortality (0.63 per cent) in cases requiring only hysterectomy and pelvic node dissection. He also wishes to call attention to the salvage of eight out of 36 patients [22 per cent] of those requiring partial anterior or total pelvic exenteration, notwithstanding the 25 per cent operative mortality in a series of 61 cases.

CONCLUSIONS

1. Recurrent cervical cancer is not amenable to further radiation therapy.
2. Cervical cancer remained confined to the pelvis and pelvic lymph nodes in 78 per cent of patients dying of uncontrolled cancer of the cervix.
3. Panhysterectomy and pelvic lymphadenectomy can offer a chance of "cure" in cases in which the disease has remained confined to the pelvis.
4. Urinary bladder dysfunction and ureteral fistulas account for the major morbidity of panhysterectomy combined with pelvic lymphadenectomy.
5. The over-all "cure rate" of 64 recurrent cervical cancer cases treated by a surgical program and followed from four years to five years and ten months is 20/64, or 33 per cent.

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REFERENCES

1. Lin, W. and Meigs, J. V.: Radical Hysterectomy and Pelvic Lymphadenectomy, A Review of 473 Cases Including 244 for Primary Invasive Carcinoma of the Cervix, Am.J.Obstr. & Gynec. 69:1, 1955.
2. Everett, Houston S.; Brack, C. Bernard; and Farber, Geo. J.: Further Studies on the Effect of Irradiation Therapy for Carcinoma of the Cervix on the Urinary Tract, Am. J. Obstr. & Gynec. 58:908-19, 1949.
3. Meigs, J. V. and Brunschwig, A.: A Proposed Classification for Cases of Cancer of the Cervix Treated by Surgery, Am. J. Obstr. & Gynec. 642:413, 1952.
4. Henrickson, Erle: The Lymphatic Spread of Carcinoma of the Cervix and of the Body of the Uterus (A Study of 420 Cases), Am. J. Obstr. & Gynec. 58:924-40, 1949.
5. Marcial—Rojas, R. A., and Meigs, J. V.: Cancer of the Cervix Uteri. A Review of 169 Necropsied Cases, Am. J. Path. 31:1077-82, (Nov.-Dec.) 1955.
6. Brunschwig, Alexander: The Surgical Treatment of Cancer of the Cervix, Cancer, 65:980-86.
7. Perry, Frank A.; Randall, Henry T.; Poppell, J. William; and Roberts, Kathleen E.: Blood Volume Replacement in Surgical Patients, Surg. Clin N. AM. 36:2. (April) 1956.

Alseroxylon (Rauwiloid) Therapy in Disturbed Elderly Patients

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THE management of disturbed elderly patients has always presented a problem. Barbiturates and other sedative drugs have been used widely, but the clinical response has not been satisfactory.

Although rauwolfia serpentina had long been utilized as a tranquilizing drug in India, it was introduced originally in this country as a hypotensive agent. As the drug became more widely used, it became apparent that rauwolfia was a valuable tranquilizing and mildly bradycrotic as well as a mildly hypotensive agent. In addition, it is remarkably free from toxicity.

An extract of rauwolfia serpentina (alseroxylon fraction - Rauwiloid®) has been used on 23 elderly, disturbed, and difficult to manage domiciliary patients. The results have been sufficiently good to warrant publication of this report. The study is continuing.

METHODS AND MATERIALS

Of the 23 patients in this study there were six males and 17 females. The age range was 40-90 years, 19 of whom ranged from 75-90. All were domiciliary patients, living in two convalescent homes. The average duration of therapy was six months, ranging from one month in 1 case to one year in another. The majority of the patients have been treated for five to 8 months. The average dose of Rauwiloil was 12 mg. daily (4 mg. three times daily). This was the only therapy in 22 of the 23 patients. One patient received Rauwiloid-Veriloid, 1 tablet three times daily, because of severe hypertension.

RESULTS

Clinical results were excellent in four patients, good in 10, and fair in five. Four were unimproved. A response rate of good to excellent in 14 of the 23 patients is deemed satisfactory for this difficult type of patient. That only four of the 23 patients failed to manifest any significant improvement attests the value of Rauwiloid therapy in such patients.

One patient (senile dementia) did not respond to Rauwiloid initially, but improved on chlorpromazine. After 8 weeks, she was changed back to Rauwiloid, and clinical improvement was maintained. Two patients did not show any significant response to Rauwiloid; they also were refractory to all other therapeutic measures, including chlorpromazine. One depressed patient showed no response to 5 months of therapy. However, one patient with C.V.A. and depression showed a good response which continued over 10 months; another patient (parkinsonian) with depression was also improved, and this improvement has lasted for over 5 months. We are aware that depression constitutes a relative contraindication to rauwolfia therapy, but the depression was not aggravated by the therapy in any case, even over such long period.

A significant hypotensive response was seen in 10 patients, a milder response in an additional three patients. In 10 patients the blood pressure remained unchanged. There was no extreme reduction in blood pressure. The greatest reduction seen was from 230/130 to 170/70, achieved over a 5 month period.

A distinct bradycrotic effect was seen in seven of 20 patients, and a milder bradycrotic effect in two additional patients. In 11 of 20 patients there was no significant effect on pulse rate. The bradycrotic action was welcome. There was no excessive bradycardia. The greatest reduction in pulse rate was from 110 to 90, over a 5 month period. The lowest pulse rate noted was 72. In no instance was a tachycardiac effect noted.

DISCUSSION

Many investigators have commented favorably on the value of rauwolfia as a tranquilizing agent for elderly patients. Lipsett, et al.[1] used Rauwiloid in a group of domiciliary hypertensive patients, and reported that while objective improvement was seen in all cases, subjective improvement was even more striking. Sainz[2] reported that geriatric patients became less irri-

P.	Age	Diagnosis	BP Control	BP After Therapy	Pulse Rate Control	Pulse Rate After Therapy	Therapy	Results	Impression of Therapy
SB F	90	Senile Dementia	200/90	150/90	100	90	Rauwiloid 12 mg. daily	Easier to manage Quieter Still confused	Improved
SM M	85	Senile Dementia	160/70	160/70	80	80	Rauwiloid 8 mg. daily	More manageable Fewer outbursts Quieter	Considerable improvement
LB F	76	C.V.A. and depression	210/100	200/95	88	80	Rauwiloid † Veriloid 1 tab t.i.d.	Improved mental attitude Less depressed	Improved
FP F	73	C.V.A. Hypertension	185/60	145/65	100	90	Rauwiloid 12 mg. daily	Patient cheerful co-operative. Blood pressure lower	Good improvement
SE F	80	C.V.A. Diabetes mellitus	180/100	140/90	96	80	Rauwiloid 12 mg. daily	More alert, cheerful BP lowered	Improved
S. F	76	Senile dementia Multiple "Little strokes"	180/100	180/90	100	100	Rauwiloid 12 mg. daily	Co-operative, cheerful, but still confused and childish	Improved
TB F	74	Hypertension Diabetes Fibrillation Nervous	230/100	170/70	110	90	Rauwiloid 12 mg. daily	Blood pressure reduced, nervousness reduced	Good improvement
GG F	88	Senile dementia, hypertension	180/90	180/90	88	88	Rauwiloid 12 mg. daily	No significant effect in 1 month	No improvement
JL M	72	Cerebral arterio-sclerosis	180/80	180/80	88	88	Rauwiloid 12 mg. daily	No significant improvement	No improvement
IC M	78	Hemiplegia Tenseness Hiccup	180/90	160/80	76	76	Rauwiloid 12 mg. daily	Good reduction in blood pressure, less tense, hiccup unchanged	Improved
ET F	79	Hemiplegia Hypertension Restlessness	210/120	160/80	76	76	Rauwiloid 12 mg. daily	Good improvement, BP reduced, less restless, sleeps better	Considerable improvement
HS F	70	Mental depression, attempted suicide	135/76	135/76	80	80	Rauwiloid 12 mg. daily	No significant change	No improvement
SC	74 F	Hypertension Senility	180/110	150/90	76	76	Rauwiloid 12 mg. daily	Disposition better, BP reduced	Good improvement
LL F	79	Senile dementia Diabetes	170/100	150/90	80	80	Rauwiloid 12 mg. daily	Less nervous, still confused BP reduced	Improved
RL F	80	Senility Blindness	140/90	140/90	72	72	Rauwiloid 12 mg. daily	Patient quieter, more manageable	Good improvement
BM F	80	Senility	150/100	150/100	76	72	Rauwiloid 12 mg. daily	More congenial, less demanding, more manageable	Good improvement
MR M	79	Hemiparesis Hypertension Amputee	200/120	180/100	72	70	Rauwiloid 12 mg daily	Less irritable BP reduced	Good improvement
W. F	65	Manic-noisy	140/90	140/90	72	70	Rauwiloid 12 mg. daily	Personality improved, less noisy	Improved
McA F	58	Depression Irritability	144/90	144/90	80	80	Rauwiloid 12 mg. daily	Good improvement, but this did not persist	Improved
RR M	60	Parkinson's disease Paranoia	130/80	130/80	80	80	Rauwiloid 12 mg. daily	Good mental improvement	Considerable improvement
GL F	40	Hypertension Rheumatic heart disease	180/100	150/90	88	80	Rauwiloid 12 mg. daily	No significant improvement	No improvement
RA M		Hypertension Nervous tension	180/100	130/80	88	88	Rauwiloid 12 mg. daily	Significant lessening of tension	Considerable improvement
K. F	75	Manic depressive (Depressive stage)	210/110	180/100	100	100	Rauwiloid 12 mg. daily	Mental status greatly improved	Considerable improvement

table, agitated, and quarrelsome on reserpine therapy, and there was improvement in fearfulness and anxiety. Freis[3] has described rauwolfia derivatives as the easiest of all hypotensive agents to administer to elderly patients. Harris and Phelan[4] have emphasized the value of rauwolfia derivatives for tranquilizing disturbing emotions of elderly patients. Many similar reports could be cited.

We selected the alseroxylon fraction of rauwolfia (Rauwiloid) for use in our patients since, in our experience, the tranquilizing, bradycrotic, and hypotensive actions were similar to those obtainable with reserpine; but the dosage was not as critical and side actions were not as troublesome. This has been reported also by other investigators.

We saw no ill effects that could be ascribed to the therapy. Side actions to the therapy were either completely absent or so mild as to be inconsequential.

The clinical response to Rauwiloid is rather slow in onset and develops gradually. This is a distinct advantage. As the effect persists for several days after withdrawal of the drug, it is safe to stop the compound at any time with no danger of sudden rebound of the blood pressure.

Our overall impression is that Rauwiloid alone quiets the moderately disturbed, tense, apprehensive, worrisome, and difficult to manage patient. In the more severely disturbed and excitable patient, it may be necessary to add chlorpromazine, particularly at the beginning of treatment. After the patient has been quieted, Rauwiloid alone usually is adequate to maintain the improvement.

Its remarkable freedom from toxicity makes Rauwiloid the first choice of therapy for these patients. The tranquilizing and mildly bradycrotic action plus the mild antihypertensive effect produces a desirable change in these patients. They become quieter, more cheerful, and less tense and apprehensive. Thus management of the previously difficult to manage patients is simplified greatly.

SUMMARY AND CONCLUSIONS

I. Alseroxylon (Rauwiloid) has been used on 23 elderly, disturbed, and difficult to manage domiciliary patients.

II. Clinical results were excellent in 4, good in 10, fair in 5, and poor in 4 patients.

III. Side actions to the therapy were negligible.

IV. Over 80% of the patients were improved to the extent that management was simplified greatly.

V. Rauwiloid alone provides adequate therapy for moderately disturbed, apprehensive, and worrisome patients. In the more severely disturbed and excitable patient, chlorpromazine was effective in calming the patient, the improvement later being maintained by Rauwiloid alone.

BIBLIOGRAPHY

1. Lipsett, M.B., et al.: California Med. 81:412 (Dec.) 1954.
2. Sainz, A.A.: Ann. New York Acad. Sci. 61:72 (Apr. 15) 1955.
3. Freis, E.D.; J. Amer. Ger. Soc. 3:710 (Sept.) 1955.
4. Harris, R. and Phelan, J.J.: Geriatrics 10:373 (Aug.) 1955.

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Cause of suffering

In Buddist thought, desire and attachment are considered to be the cause of suffering. Those of us in the western tradition might modify this stern, totalitarian opinion and allow that desire for and attachment to higher values and ideals are not only permissible but necessary, even at the cost of suffering. We can agree that exclusive and excessive worldly desires and attachments are potent sources of misery. Again, it seems to be fundamentally a matter of fear — fear that we shall not obtain what we desire; that we shall lose what we have; that we shall obtain what we do not desire. With the exception of purely materialistic knowledge and thinking, the thoughts of man, in many times and places, create a garment of numerous threads wherewith to clothe himself from the cold currents of the existential predicament; or the problem of existence as such. *H. M. Flanagan. The Anxious Patient. Lancet, Aug.* 4, 1956.

Respiration in School Children Recoverable Hearing and Nasal

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A recent survey by the National Education Association listed 30,179,357 pupils in public elementary and high schools[1]. Another report[2] says about 10% of school age children have a significant hearing deficiency as determined through audiometric screening tests. This paper has reference to these 3,000,000 children. The U. S. Public Health Service[2] made an estimate of only 18,000 school age children in the United States with sufficient hearing impairment to warrant the term "deaf." What of the multitudes with hearing loss not sufficient to be called deafness?

This report of 350 cases encountered in private practice deals with the problem at the grass roots level. It must be understood that otolaryngologists care for but a few per cent of these millions of children. All cases in this survey were 4 years of age and up. They all had acquired verbal communication or speech and no "deaf" children were included. One qualification adopted in selecting cases was that there be no obvious cause for the hearing loss found on the audiometer test of each child. Automatically, children with acute upper respiratory infections were not included. Cases with acute or chronic otitis media or otitis externa, cerumen blockage, serous otitis, tympanic membrane perforations, or marked distortions of the drum were likewise excluded because of the obvious relationship to hearing loss. The author hoped to zero-in on a new conception of hearing losses in school children in its true magnitude by an analysis of the management and end results of treatment in this series.

HISTORY AND SYMPTOMS

The patients were seemingly in good health yet there was a suspicion by the parents or teacher that hearing should be checked. Some of the complaints of the mother were that the child did not appear to hear her calls, was inattentive to noises around the house, or turned television on very loud. Some considered the child a behavior problem in not minding the parents and doing things they were told not to do. Parents often were chagrined because their child, who had always been perfectly normal to them in every respect, was found to have an audiometric deficiency.[3]

In half of these 350 cases neither parent nor child was aware of any hearing loss. In many cases the school examination corroborated the suspicions of the parents, and so the child was brought in.

In the analysis of symptoms, hearing loss was present in 40% of the cases, otalgia in 33%, and mouth breathing in 30%. In 19% there were no complaints. Snoring, nasal blocking, nasal discharge, anorexia, cough, epistaxis, and sore throats occurred in few instances.

PATHOGENESIS

Before going into a description of the physical findings of these cases, it is necessary to comprehend the basic physiological principles at work in hearing losses of children. All the following factors play their role dynamically in the etiology of this entity. It is upon the recognition of all these factors, acting proportionately in each individual, that a hearing loss becomes manifest or that it disappears by the automatic corrective forces of the body.

1. Lymphatic drainage of the first branchial pouch derivatives.
2. Conception of allergy in its broadest sense.
3. Bacterial and viral infection of the upper respiratory system.
4. Physiological functioning of the nose and nasal passages including eustachian tubes in respiration.

Understanding recoverable hearing loss means knowing the lymphatic anatomy of the derivatives of the first branchial pouch and what happens when pathological stimuli are applied to the lymphatic structures draining this area of the body.[4,5] Lymph flows from the middle ear

to the eustachian tube and is continuous with the pre-eustachian plexus draining the rest of the first branchial pouch derivatives such as the lining of the nose, sinuses, and nasopharynx. Then it goes into the retropharyngeal nodes. Lymph also flows via an accessory transtympanic path to the parotid and deep cervical nodes. Retrograde flow occurs often, so that pathology of the nose, as in upper respiratory infections, is commonly responsible for tubal catarrah and conduction middle ear deafness.[5]

PHYSICAL EXAMINATION

In the light of this lymphatic pattern, the physical findings may be seen in their proper perspective. First, in respect to the ear, the tympanic membrane appears intact. However, upon close scrutiny, there may or may not be found retraction of the drum and prominence of the short process of the malleus. The color of the drum is off in many cases, ranging from lack of translucency to opacity, from gray to yellowish cast (all signs of passive congestion originating from the eustachian tube lymphatic plexus). Next, the test of function by tubal inflation may or may not improve hearing. In fact, I have minimized this diagnostic test because lack of improvement of hearing does not mean that middle ear passive congestion does not exist. It merely means that the tube is still patent but there may be middle ear passive congestion which can account for the hearing loss, which may even resemble the perceptive type on the audiogram.

The physical findings of the nose are a remarkable commentary on the popular lay conception of normal health in this modern era. Children's noses may commonly be seen with excoriated nostrils, passages full of mucus and pus, and redness of the soft tissues at the nasal orifices, resulting from local allergic sensitization of tissues from long standing nasal secretions. Yet upon interrogation of parents, there are no nasal complaints and "no obvious cause" is present for the hearing loss. This situation is accepted as normal by many people today or parents think the child is having another cold. Indeed, these signs lasting for weeks, months and even years, are expected to be outgrown.

Functional Nasal Respiratory Test: The nasal passages show varying degrees of obstruction with nasal respiratory decompensation (Figure 1.) When looking into the normal nasal

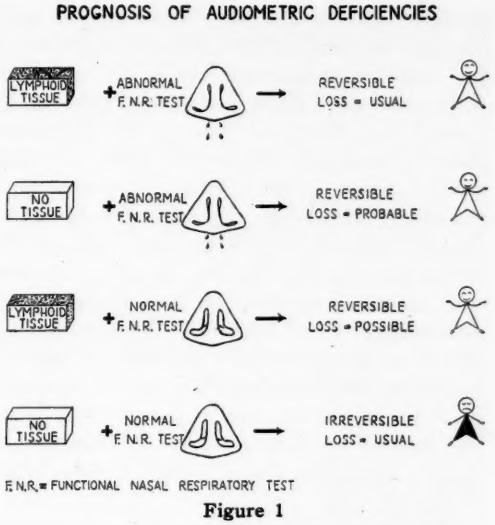

Figure 1

passages with a head mirror, usually only the vestibule is seen, ending in a blind vertical narrow slit, opening into the inferior meatus, about 1 mm. in width. The air passing through the nose in a thin laminar flow, sheetlike, past the choanae, is the normal functional position or normal laminar flow position. Often in pathological states and occasionally, in the warmer months of the year or after a person has been in a warmed room for awhile, one encounters the widely open nasal passage of the nose when, again with a head mirror, one may inspect the nasal passages through to the choanae. Now, however, the width of the inferior meatus is between 2 to 6 mm. and only then may the true function of the nose be appraised by the size of the adenoids, freedom of the airway, presence of purulent secretions, presence of polyps, and mobility of the soft palate with "k" articulation. In order to place the nasal passages in this optimal position for examination, it is always necessary to shrink the passages with a standard solution over a standard time. I have found the insertion of a cotton pledget moistened with 2% cocaine and 4% ephedrine, for 12 minutes in the inferior meatus to be satisfactory for children, first gaining the child's confidence so that crying must never occur. Otherwise, the result is an abnormal amount of mucus and swelling and the "cookie" articulation cannot be performed co-operatively. In addition, the child is requested to smile when the nasal speculum is introduced, because this relaxes the nasal

depressor muscles and helps inspection through the inferior meatus. With normal excursions of the uvula on articulation of "k" the posterior surface of the uvula is seen via the nose to flip upward and backward, sealing off the nasopharynx from the oropharynx. When adenoid tissue is hindering the articulation movement of the uvula, no flipping movement is seen at the choanal level. Failure of the nasal passages to shrink down to the standards of a normal nose, with clear visualization of the adenoid region and absence of any bogginess of the turbinates, always means an anterior infection or allergy, with or without exudate. The role of the adenoids in causing this can be decided only when the choanal aperture is visible. It may not be possible until after several weeks of conservative therapy.

One may question the necessity for such a routine nasal examination, but if the diagnostician draws an analogy between the vestibule of the vagina and the vestibule of the nose, the significance is easily apparent. An opinion regarding the pelvic organs would not be given without employing a vaginal speculum to visualize the cervix. In like manner, a nasal speculum and nasal shrinkage must be utilized to visualize the posterior nasopharyngeal wall through the nose with a head mirror, before giving an opinion regarding a hearing loss. Children were not discharged as normal and cured until this functional nasal respiratory test was normal.

RATIONALE OF TREATMENT

Modern concepts of allergy of the nose are being revised. The role of the psyche (Wolff)[6] and hormonal influence (Selye)[7] is proving that these changes are reversible by self-correcting body factors, and that the necessity for prolonged mentally crippling allergic therapy of these children is, in most cases, a serious error in modern medical practice. Selye showed that the response of the organism to physiochemical stress or a noxious agent is, in general, the same whether the etiology is bacteria, virus, chemical burn, gunshot wound, or allergy.

Although the role of infection in allergy of the upper respiratory passages is not known in all its aspects, this much can be said with some certainty: Bacteria and viruses have a proved local tissue toxicity which, if severe, becomes a generalized toxicity. In addition, many authoritative articles[10-15] have given infections a specific role in promoting localized tissue hypersensitivity reaction and generalized tissue hypersensitivity reactions not at all limited to the bronchi.[8-13]

Therefore, it can be postulated that localized tissue allergy may be temporarily induced in the nasal passages, nasopharynx, and eustachian tubes, and that this same state of allergy may arise spontaneously after (1) local infection, (2) stasis of antigenic secretions in this area, and (3) accumulations of lymphoid tissue of a pathological nature are present for a period of time so as to interfere with normal nasal respiration. Consequently, because of the dynamic state of hormonal balance in the body, this same allergic state may spontaneously disappear after correction of the above three conditions. This I repeatedly have found in these children, verified by remarks of the mother that her child's allergy has completely disappeared after treatment, either medical or combined with surgical removal of the pathological tissue.

The surgical principle of restoring anatomical structures to a semblance of normal must first be carried out. One would not hesitate to incise and drain an abscess cavity if pus were present. Then, if need be, antibiotics are given. Likewise, the allergic child's respiratory passages must be cleared of infected lymphoid tissue and statis secretions before intricate desensitization procedures are done, which in most cases prove to be superfluous.

Finally, the emphasis on a physiological restoration of hearing has previously not been made. Instead, the treatment of hearing loss was related to a particular style of surgery, form of radiation, or finesse of allergy. This therapy seeks to restore normal nasal respiration, normal functioning lymphatics, and normal eustachian tubes, allowing sufficient time for the body's hormones to exert their reparative effects. When this is accomplished, not only does hearing return to its optimum level but the child feels better, eats better, has a better disposition, and the nasal allergies disappear. It must be said at this time that the true irreversible perceptive type of congenital hearing loss can never be recovered by the concept of physiological restoration.

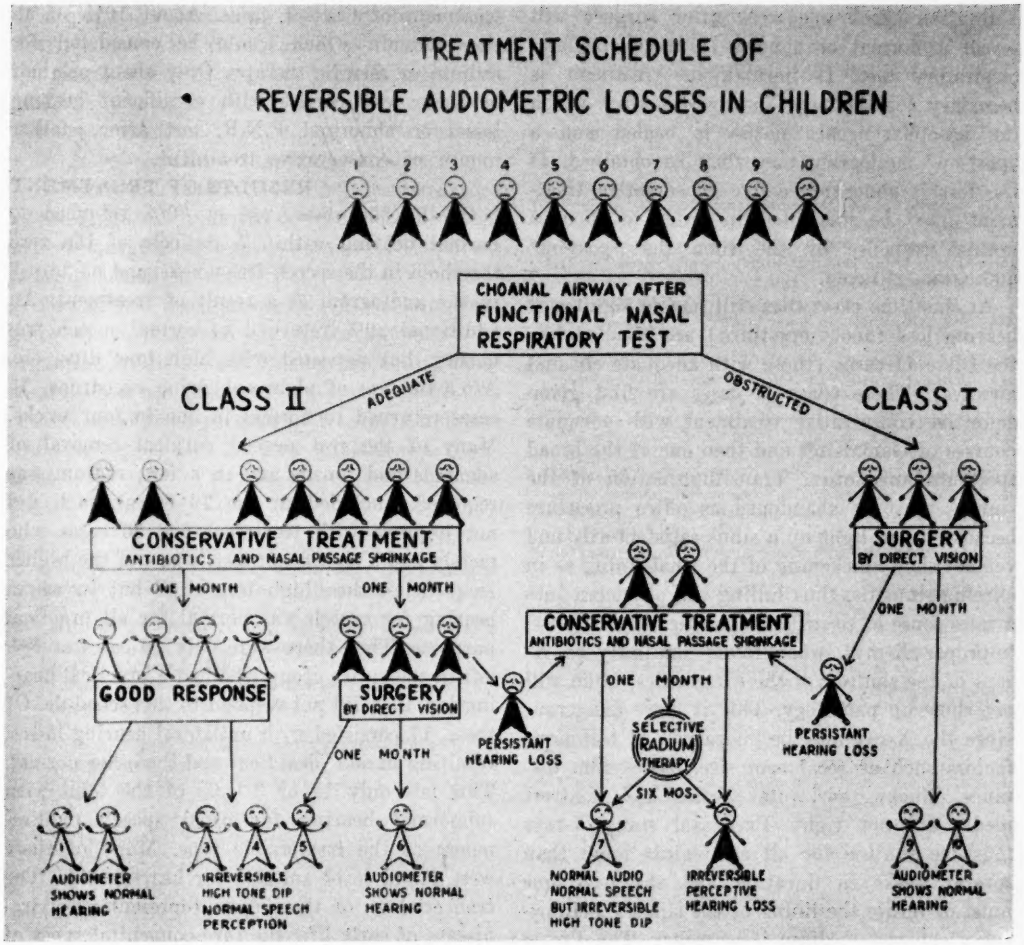

Figure 2

METHOD OF TREATMENT PROCEDURES

Initial Routines: After the functional nasal respiratory test is performed, the nasal passages are in optimal attitude for the direct aspiration with suction pump of retained secretions lying tenaciously in the nose. After the audiogram is procured, the patient is given nose drops, (¼% ephedrine in physiological saline) and careful instructions are printed on the correct method of their use. This procedure alone was sufficient to restore normal hearing in one to three weeks in 20% of the cases. It must be understood that none of these cases was afflicted with the common upper respiratory disease which lasts for a few days to a week to two and then spontaneously resolves. All had had complaints or signs of difficulty for months to a year in duration. Therefore, improvement cannot be ascribed to anything but these measures.

When the patient returns, a recheck of the audiogram will reveal not only any improvement that resulted but will serve to confirm the quality and quantity of the hearing loss. In any event, only after the choanal aperture can be visualized can it be immediately determined if lymphoid tissue is a factor in causing impairment of the nasal airway. For this diagnostic point, one cannot rely on tacticle clews or statements of history by parents. If over half of the choana is occluded, surgical removal of all lymphoid tissue by direct vision is necessary[14-16] even if nasal sinus infection or allergy is present. These are called Class I cases (mechanical obstruction of airway). (Figure 2.) Thirty percent of all cases were of this type.

Routine check one week after surgery will reveal a normal or abnormal functional nasal respiratory test. If normal, no treatment is necessary for the next four weeks after which the nasopharyngeal mucosa is healed and a "post-op" audiogram may then be obtained. If the test is abnormal, active conservative treatment must be instituted in order to effect a normal response by the time the "post-op" audiogram is taken.

At this time cases that still have a significant hearing loss (about one-third) are handled like the Class II cases (those with adequate choanal airways). These Class II cases are first given definitive conservative treatment with adequate courses of Gantrisin® and then one of the broad spectrum antibiotics. Transillumination of the sinuses must be abandoned as office procedure because it can light up a sinus satisfactorily and yet not show thickening of the sinal lining as in chronic sinusitis, thus lulling the physician into a false sense of security diagnostically. Likewise, improper X-rays, when taken similiarly to X-rays of the skull or of the extremities, often will not show up pathology. This is more dangerous since the X-ray may be "negative" if technique factors such as focal spot size, object film distance, Bucky, horizontal beam, and contrast media are not right. Paranasal sinus X-rays must be routine for all complaints more than several weeks in duration and the technique must delineate the lining of the sinuses, employing a contrast medium if necessary. The Proetz test of displacement with oily contrast media and 72 hour remptying time film are the only certain methods to pick up a chronic subclinical infection in the paranasal sinuses.

Decongestive nosedrops are prescribed for home use and weekly office dilatation and aspiration treatments are given, wherein the nasal passages are forced open delicately with shrinking agent on cotton with bayonet forceps as in the F.N.R. test. If sinus disease is present, the Proetz displacement is used. If hearing does not return to normal after one month and the sinuses are normal roentgenographically, then surgical removal of all lymphoid tissue is done by direct vision methods. This lymphoid tissue has undergone pathological changes which are considered irreversible[17] as was found necessary in 30% of the cases. Class II cases are then treated as previously described in conservative treatment of Class I cases. About 10% of all cases remain which would be considered for radium or allergic therapy. Only about one-half of these will persist with significant hearing losses or abnormal F.N.R. test after another month of conservative treatment.

RESULTS OF TREATMENT

Of the 350 cases, 245 or 70% returned to normal hearing within 5 decibels of the zero threshold in the speech frequencies and no "dips" in the audiogram as a result of treatment. An additional 20% returned to normal speech frequency, but persisted with high tone dips, etc. After the use of plain ephedrine nosedrops, 75 cases returned to normal in one to four weeks. Many of the rest needed surgical removal of adenoids and tonsils and in a few, radium was required. Included in the 79 cases which did not improve with treatment are 50 cases who merely had a significant loss in one of the higher frequencies, the "high tone dip" but in whom hearing for speech was normal for all practical purposes. Thus there were only 29 cases or 8% left in the entire group who had a practical hearing loss that did not respond to this schedule. Of these, 17 persisted with unilateral hearing losses, resulting in one "deaf" ear and the other normal. This left only 12 or 3-½% of the total with subnormal hearing for usual speech requirements of the irreversible type. Many of these were found to be suitable for hearing aids. The true etiology of these cases represents postviral disease of early life, the rare congenital types of hearing losses, and long standing conduction type of middle ear disease prior to beginning treatment.

CONCLUSIONS

An analysis of 350 cases of hearing losses in school children, as detected on the audiometer, shows 9 out of 10 to be reversible or without a residual practical hearing handicap. This excludes such obvious causes as foreign bodies in the ear canal, cerumen, suppurative otitis media, external otitis, and serous otitis with effusion. Evidence has been presented to show the reversibility of hearing losses, including those that would have been considered perceptive in type, many of the "congenital dip" types having returned to normal. [18-21]

A physiological approach to treatment confirmed the all important role played by the lymphatics of the middle ear and eustachian

tube and the relationship to the etiology of the hearing loss was hypothesized as due to local lymphatic stasis of the conduction mechanism arising from an acquired respiratory nasal tissue hypersensitivity, or allergy in agreement with Selye's localized adaptation syndrome.

A functional nasal respiratory test was used as the diagnostic index in deciding whether medical or surgical therapy was needed for these hearing losses in children.

The school hearing survey is an important detection method and should be supported by organized medicine because, by projecting these results on a national scale, millions of children can be saved from permanent hearing handicaps while in school and in later adulthood occupations.

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BIBLIOGRAPHY

1. Chicago Daily Tribune, Dec. 6, 1954.
2. Bordley, J. E. and Hardy, W. G.: The Significance of the Early Diagnosis of Hearing Impairment in Children. Pub. Health Rep. **66**:521-528, (Apr. 27) 1951.
3. Curry, E. T.: The Efficiency of Teacher Referrals in a School Hearing Testing Program. J. Speech Disorders, **15**:211-214, (Sept.) 1950.
4. Rouviere, H.: Anatomy of the Human Lymphatic System. translated by M. J. Tobias, Ann Arbor, Mich., Edwards, 1938.
5. Robinson, J. M.: Physiology and Functional Pathology of the Lymphatic System Applied to Otorhinology. Acad. Ophthal. and Otolaryn. Graduate Lecture 1946, Course No. 354
6. Holmes, T. H.: Goodell, Helen; Wolf, S.: and Wolff, H. G.: The Nose. Thomas, 1950.
7. Selye, H.: Stress, The Physiology and Pathology of Exposure to Stress. Acta, Inq. Med. Publ., Montreal, Canada, 1950.
8. Ratner, B. and Silberman, D. E.: Allergy — Its Distribution and the Hereditary Concept. Ann. Allergy, **9**:1-20, 1952.
9. Coca, A. F.: Familial Nonreaginic Food Allergy. Thomas, 1953.
10. Stevens, F. A.: Sensitization of Nasal Mucous Membranes to Bacteria. J. Allergy **24**:446-451 (Sept.) 1953.
11. Drinker, C. K.; Field, M.D.; Ward, H. K.; and Lyons, C.: Increased Susceptibility to Local Infection Following Blockage of Lymph Drainage. Amer. J. Physiol. **112**:74-81 (May) 1935.
12. Sherwood, N. P.: Immunology. ed. 3, Mosby, 1946, 635-641.
13. Chobot, R.; Uvitsky, I. H.: and Dundy, H.: The Relationship of Etiologic Factors in Asthma in Infants and Children. J. Allergy, **22**:106-110 (Mar.) 1951.
14. Meltzer, P. E.: A Study of Lymphoid Tissue of the Nasopharynx. Ann. Otol. Rhin. & Laryn. **63**:607-619 (Sept.) 1954.
15. Reves, E. and Brill, R.: More Complete Adenoidectomy to Overcome Interference with Nasal Breathing by the Salpingonasal and Salpingopalatine Folds. Larynoscope, **61**:146-164 (Feb.) 1951.
16. Guggengeim, P.: The Adenoid Problem. Arch. Otolaryn. (Feb.) 1952.
17. Semenov, H.: The Pathology of the Pharyngeal Recess, Eustachian Tubes, Tonsils and Adenoids. Trans. Amer. Acad. Ophth. **57**:555-584 (July-Aug.) 1953.
18. Loch, W. E.: The Incidence and Permanency of Tonal Dips in Children. Laryngoscope, **53**:347-356, 1943.
19. Juers, A. L.: Clinical Observations on End Organ Deafness. A Correlation with Cochlear Anatomy. Laryngoscope **64**:190-207 (Mar.) 1954.
20. Wishart, D.E.S.: Problem of Hearing Defects in Children, Ann. Otol. Rhin. & Laryn. **61**:762-774. (Sept.) 1952.
21. Markle, D. M.: The Conductive Mechanism of Hearing and Recruitment, Arch. Otolaryn. **60**:453-458 (Oct.) 1954.

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Enzymatic debridement

Progress in the treatment of infected wounds with enzymes has been of sufficient degree to indicate the permanent usefulness of these agents. Proper use of the enzymes demands a knowledge of the substrates (fibrin, pus, and necrotic tissue) upon which they act and of the environmental factors which govern their actions. Varidase and tryptar are the forerunners of a battery of enzymes which will be applied to specific substrates in infected wounds. *Joseph M. Miller, M.D. and Milton Ginsberg, M.D. Enzymatic Debridement. Maryland M.J. March* 1956.

The unsolved problem

The process of fermentation became a problem of mankind probably long before Shem and Japhet covered their drunken father's nakedness, and the art of the distiller has done little to abate it. Attempts have been made over the years to break the spell that drink has cast upon the western world but, based on emotionalism and duress, they have been largely ineffective. Only the faith of Islam seems to have been relatively successful in controlling this desire and quenching the thirst. *Editorial. Understanding the Alcoholic. New England J. Med. Aug.* 30, 1956.

The Host in Infection

J. Thomas Grayston, M.D., Assistant Professor of Medicine, University of Chicago
Mark H. Lepper, M.D., Professor of Preventive Medicine
Guy P. Youmans, M.D., Professor of Bacteriology, Northwestern University

DOCTOR SAMTER: Since the advent of antibiotics, the role of the host in infection has been underestimated. We should, perhaps, be grateful to the virus diseases which have resisted antibiotic therapy and re-oriented us toward the importance of host factors in infection. Doctor Mark Lepper has kindly agreed to introduce the topic and the panelists.

DOCTOR LEPPER: It seems safe to say that a discussion of "The Host in Infection" could well encompass a series of seminars throughout the year. Doctors Youmans and Grayson have contributed important findings to specialized segments in the field. Doctor Youmans' work on resistance to tuberculosis and Doctor Grayston's on resistance to virus are on opposite ends of the spectrum and provide an exciting insight into the scope of the problem.

What are some of the interactions between microorganisms and the host? Growth of microorganisms in the infected host has multiple effects which include (1) competition with host cells for food, (2) production of chemical substances or toxins capable of damaging host cells and deranging host functions, and (3) multiplication with spread throughout the host organism. During deterioration, the microorganisms might escape effective removal (persistence of infection) or release damaging intracellular chemicals (endotoxins) at the time of their death. In response to these parasitic and invasive functions, the host relies on reactions which (1) limit the rate of growth, (2) neutralize toxins, (3) limit spread, (4) destroy and eradicate survivors, and (5) remove their remains.

The tools which the host organism utilizes in these defenses include: (1) an integrated set of immediate reactions, e.g., the action of cilia, flow of body fluids across mucous membranes, or the movement produced by smooth muscle peristalsis; (2) protective cells, such as the special cells which resist microorganisms at the portals of entry; the presence of enzymes like lysozyme produced by such cells; the existence of a "normal flora" in various tracts which antagonizes the growth of invading virulent microorganisms; and the availablility of highly specialized host cells of the phagocytic and reticulo-endothelial series which ingest. destroy, and eradicate the infecting organism; (3) substances in the blood stream of the host which are part of his defense against microorganisms; antibodies producing immobilization, agglutination or lysis of microorganisms; complement which participates in antigen-antibody reactions; properdin which potentiates protective mechanisms; perhaps, mucoproteins which compete with cell surfaces for virus attachment; and proteolytic enzymes which may influence the degree and duration of inflammation; (4) non-specific chemical compounds which inhibit microorganisms such as lactic acid, which is decreased in diabetes mellitus and might explain, in part, the poor host resistance in diabetic patients; polypeptides like the polylysines with similar action; steroid hormones which seem critical in efficient host response to infection; maintenance of oxidative phosphorylation through the Krebs' Cycle; and adequate supply of choline since choline deficiency has been associated with decrease in reticulo-en-

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dothelial activity; and finally, (5) physicochemical factors such as the elevation of temperature and localized inflammatory reactions. With this general introduction to guide us, I would like to ask Doctor Youmans to talk to us about his work, the relationship between the tubercle bacillus and the response of the host.

DOCTOR YOUMANS: The discussion of this subject is complicated by the fact that past efforts have resulted in no adequate explanation of the mechanism of immunity or resistance to tuberculosis. No antibody appears to be involved in immunity to tuberculosis and no chemical, no enzymatic, metabolic or hormonal or tissue inhibitory substance has been found to correlate with host resistance in mycobacterial infections. No chemical or enzymatic property has been found in the tubercule bacilli that correlates with clinical virulence. This phenomenon is in contrast to the behavior of many other organisms which do show such correlation. Host resistance to the tubercle bacillus seems to be mediated through phagocytic cells but the particulars are still unknown. When phagocytic cells ingest virulent tubercle bacilli, three possibilities ensue: (1) the infecting bacilli may be completely destroyed - this, of course, means clinical and bacteriological cure; (2) the bacilli may establish a steady state within the host, remaining viable for years after the initial infection, but never progressing beyond a certain limit - this might mean clinical recovery but bacteriologic persistence; or (3) the invading bacilli may multiply at a rate greater than the defensive potential of the host - this means, first, a progressive spread of the area of infection and eventual severe clinical disability or death.

Tubercle bacilli have been divided into three types on the basis of multiplication in the host: (1) virulent bacilli which show rapid multiplication, and, accordingly, progressive extension of disease; (2) attenuated bacilli which show limited multiplication, but no progression of infection; and (3) avirulent bacilli which have lost their capacity to multiply or to produce disease in the host. Thus, the course of infection with tubercle bacilli has been to some extent correlated with rates of their multiplication.

To study this problem, we developed reliable techniques for the determination of rates of multiplication of bacilli in the organs of mice, the description of which would exceed the time limits of this discussion. We used virulent, attenuated, and avirulent bacilli and infected both immunized and non-immunized mice of known "resistant" and known "susceptible" strains. The number of organisms in lungs, liver, and spleen was determined throughout the course of the infection.

Attenuated and avirulent organisms did not multiply in the organs of mice of either "susceptible" or "resistant" strains. Virulent mycobacteria, on the other hand, increased in number. Mice infected with large numbers of virulent tubercle bacilli died of the progressive infection. Mice injected with small numbers of tubercle bacilli survived for prolonged periods and it was shown that multiplication of the tubercle bacilli in the organs of these animals had ceased.

No multiplication of virulent tubercle bacilli could be detected at any time in the organs of immunized mice, but the microorganisms remained viable in the tissues.

Experimental infections of guinea pigs with tubercle bacilli confirm these findings in principle, but guinea pig tuberculosis is commonly a disease of the liver and spleen whereas tuberculosis in mice is predominately a pulmonary disease. In man, tuberculosis may be present for many years, and spontaneous regression of the infection may occur. Non-specific decreases in host resistance are often accompanied by a progression of the disease, and cases of "arrested" lesions often show large numbers of persistant virulent organisms. Finally, chemotherapy may have a profound effect on the interaction between host and microorganism. However, it would appear that the degree of acquired immunity which develops in the host during infection may be the crucial factor which determines the course of the infection.

DOCTOR Walter WOOD, Instructor in Medicine: What is the effect of the injection of additional bacilli during stable infection without progressive disease?

DOCTOR YOUMANS: I cannot answer conclusively. Animals in such a state are immune, at least to some degree, and are generally more resistant to further inoculation. I might add that it is not known whether such immunity is dependent on antibody or phagocytic cells or both.

DOCTOR SAMTER: Your introductory remarks suggest that sensitization to tubercle bacilli does not alter the resistance of the host — is this correct?

DOCOR YOUMANS: I have been unable to implicate allergic mechanisms, but I feel that this statement is based on opinion rather than experimental evidence.

DOCTOR LEPPER: Thank you Doctor Youmans. Doctor Grayston will now discuss the investigative work on virus infections done by the University of Chicago group and the effect of immunity of the host on the course of experimental influenza.

DOCTOR GRAYSTON: The studies by Doctor Clayton G. Loosli and his co-workers which I am about to describe, concern pathogenesis and pathology of experimental influenza virus infections in mice. Pulmonary infections are produced by cloud chamber exposure of large numbers of animals simultaneously to uniform concentrations of nebulized influenza virus aerosol. Mice of identical strains were classified according to the state of their immunity to influenza virus measured by hemagglutination — inhibitory titer of serum. The series included control animals; animals which had recovered from sublethal air-borne influenza infections; animals injected intraperitoneally or subcutaneously with killed influenza virus (vaccine); and finally previously untreated animals which were passively immunized by the injection of serum of low, medium or high immune titer.

Natural immunity following recovery from infection; or immunity following intraperitoneal injection of killed virus, prevented both virus proliferation and death of the host, even after inhalation of more than one thousand times the lethal dose of virulent virus. Control animals succumbed quickly to virus inhalation. Subcutaneous injection of killed virus gave lower antibody titer than intraperitoneal injection and permitted some virus growth in the host, but all animals survived; and antibody titers rose, subsequently, to the usual post-infection recovery levels.

In animals given, passively, antibody of varying titer, protection against death correlated directly with the antibody titer of the injected serum. Virus proliferation occurred in all mice receiving immune serum: the antibody titer declined after exposure so that in those which recovered, no circulating antibodies were found after recovery. When these animals were re-challenged, however, they were frequently resistant to the inhalation of virus despite the absence of serum antibody. The decline of their serum hemagglutinating antibody titer to zero values after their first exposure suggests that the injection of antibodies from immune donors prevented in the recipient, production of humoral antibodies, perhaps by preventing viremia. However, some sort of local protective mechanism was stimulated. It may be postulated that the original infection may have produced a cellular immunity in their lungs.

The lungs of non-immunized animals which survived infections often show marked parenchymal scarring with bronchial metaplasia suggestive of carcinomatous changes while previously immunized animals showed only minimal parenchymal lesions with shedding of bronchial cells and complete recovery.

DOCTOR Alan D. Rapp, Resident in Medicine: Does virus proliferate in animals which have survived a first infection under passive immunity; and are re-challenged in the absence of serum antibody?

DOCTOR GRAYSTON: Yes, it does, but fails to cause parenchymal lesions or bronchial metaplasia.

DOCTOR Louis C. Johnston, Clinical Assistant in Medicine: What keeps the passively protected animals from producing their own antibodies?

DOCTOR GRAYSTON: Viremia may be necessary for humoral antibody production; and this viremia is apparently prevented by passive immunization.

DOCTOR WOOD: Is the titer of hemagglutination-inhibiting antibody a reliable index of virus-neutralization ability?

DOCTOR GRAYSTON: In general, the correlation is satisfactory.

DOCTOR William R. Best, Assistant Professor of Medicine: It there a possibility that resistance to re-challenging represents an augmented anamnestic antibody response?

DOCTOR Harry F. DOWLING, Professor and Head, Department of Medicine: It would seem that the lack of an early rise in antibody titer would speak against an anamnestic mechanism.

DOCTOR Adolph ROSTENBERG, Jr., Professor of Dermatology: How long after infection modified by passive antibody have mice been resistant to reinfection?

DOCTOR GRAYSTON: In one experiment this non-humoral protection was shown to last at least thirteen weeks.

DOCTOR JOHNSTON: Do properdin levels vary in these infections?

DOCTOR LEPPER: Properdin is a most interesting substance and deserves, I believe, a seminar of its own. In many aspects of host resistance, the gap between theoretical knowledge and practical application is not yet closed. Tuberculosis is still among us and Doctor Grayston's suggestion that host resistance might be based on cellular as well as humoral antibodies has considerable practical importance. It might help us to decide, for instance, whether our present attack on polio which makes use of the parenteral administration of killed virus (Salk), or the exposure to attenuated live polio virus (Sabin), which is now under scrutiny, will be our final answer for the control of diseases of this type.

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How to keep your name aglow

My young friend came to me last night with a rather tricky problem. How could he make his mark in medicine by Jan. 10, he asked. I inquired why then, and it turned out he was getting married then and wouldn't have the time afterward. I asked for further details. Had he discovered any new disease? No, he said, not even a measly syndrome. How about a new drug or a missing factor in a disease no one had ever heard of? No again, he said, he couldn't remember having discovered anything like that lately. Very well, then, I said, let's think of some titles and perhaps you can think of a disease to fit them. How about Hogmanay disease or a dermatological rash involving the skin or the Bolus No. 9 disease? My young friend shook his head sadly, like a membership censor enjoying himself. I was struck by an inspiration. Have you written an article, I asked. No, he replied. I was surprised — after all he had been qualified four months. In that case, I said, there is only one thing to do if you want to make your mark in medicine by Jan. 10 and that is to write an article. My young friend protested. He had nothing to say, he said. Why should he be different from the others, I asked. He was moved by my logic. What subject should he write about? So far he has done only locum surgeries at Shepherd's Bush. Excellent, I exclaimed. You must write an article on medical education. Call it Thoughts from a Surgery in Shepherd's Bush. Will that suffice, he asked. Assuredly, I said. Make a few nasty noises about the medical curriculum and say that anatomy and physiology should be scrapped and that clinical work should start in the first year. Insist that consultants should be apprenticed to G.P.s for at least a year and then not allowed back into their wards at all. Will anyone take it, he asked. Take it, I exclaimed, they'll clamor for it. All they have just now are articles on serum levels in aboriginal half-castes in Outer Bessarabia. Besides they are always printing articles on medical education. And will that make my name in medicine by Jan. 10, he asked. Certainly, I said, and not only that — the correspondence that follows will keep your name aglow for at least a year. *In England Now. Lancet. Sept.* 29, 1956.

Adrenocorticotropic Hormone (ACTH) in the Treatment of Barbiturate Poisoning

K. Chrysanthia Kubota, M.D. and Arthur Bernstein, M.D., Chicago

THIS study was undertaken in an attempt to determine the effect of ACTH therapy upon coma which follows ingestion of excessive amounts of barbiturates.

Twelve patients with acute barbiturate intoxication were treated with ACTH (Armour). These cases were grouped according to the classification of Reed et al[1] which is based upon the degree of depression of the central nervous system, of the respiration, and of the circulation. Thus the patients were classified as belonging to O, I, II, III, or IV; however, since all of the patients in this reported series were comatose none met the requirements of Group O. The cases were difficult to classify because of the occasional overlapping; one system may be more readily affected than another. For example, the nervous system or the respiratory system may be depressed or the circulatory and respiratory systems may be depressed with no depression of the nervous system. In such instances the cases were placed in that group wherein the greatest number of criteria were fulfilled.

All patients treated with ACTH were admitted to the hospital in deep coma. A complete physical examination, performed on admission, was followed by periodic re-examination of the temperature, pulse, respiratory rate, blood pressure, cardiac and pulmonary status, state of consciousness, pupillary size and reaction to light, muscle tonus and response to pain. Neurologic examination was done and the reflexes were graded as follows: 0 for areflexic, 1 plus for hypoactive, 2 plus for physiological, 3 plus for hyperactive, and 4 plus for pathologic hyperactivity. Pain was estimated as follows: 0 for no response, 1 plus for minimal, 2 plus for mild, 3 plus for moderate, and 4 plus for maximal response.

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ACTH DOSAGE

ACTH, administered intravenously in doses of 10 to 20 mg. in 1000 cc. of 5 per cent dextrose solution, was given over a period of six to eight hours at a rate of approximately 40 drops per minute. The only deviation from this dosage procedure was in Case IX, the first case treated; here 65 mg. of ACTH in 500 cc. of physiologic saline solution was given. If the patient was not alert after the initial dose, another infusion of 10 mg. of ACTH in 1000 cc. of 5 per cent dextrose solution was given.

Because of lack of space, representative cases in each group will be given. Full discussion of the total number of 12 patients will be found in the discussion of the results and summary.

Group I: In this group of 3 patients is included those who were comatose, but who withdrew from painful stimuli such as venipuncture, slapping, and pinching. There was no circulatory embarrassment and all reflexes were intact.

Case I — J. N., a 44 year old white man, was admitted to the hospital August 22, 1952, at 2:10 in the morning. He had taken seven blue and red sleeping capsules at 11 o'clock the preceding evening. On admission his rectal temperature was 98°F., pulse 92, respiration 14, and blood pressure 100/80. The heart and lungs were essentially normal. The pupils were constricted and did not react to light; the muscles were flaccid with 1 plus response to pain, and the deep tendon reflexes were 1 plus throughout; no pathologic reflexes were elicted. ACTH, 10 mg. in 500 cc. of 5 per cent glucose in water, was begun at 2:30 a.m. One-half hour later the pupils reacted to light and there was increased tonicity of the muscles. At 7:30 a.m., the patient was alert and co-operative, with no change in the temperature, pulse, respiration and blood pressure.

Comment: Response to ACTH in five hours.

GROUP II: In this group of 2 patients is included those who did not withdraw from painful stimuli but who had no respiratory or circulatory depression. Most or all of the reflexes were intact.

Case IV — C. S., a 55 year old white man, was admitted to the hospital August 7, 1952, at 10 o'clock in the evening. He was a chronic alcoholic and morphine addict who had taken an unknown amount of Seconal Sodium®. The time of ingestion was also unknown. His rectal temperature was 100° F., pulse 128, and the respiratory rate was 14 per minute with gasping respirations. The blood pressure was 30 mm. Hg. systolic, and the diastolic pressure was not obtainable. The antecubital veins were thrombosed, the heart tones embryonal, the chest emphysematous, and the breath sounds distant; multiple abdominal scars were noted. The pupils were unequal, the left measured 7 mm. in diameter and the right 4 mm.; they did not react to light. The muscles were flaccid with 1 plus response to pain, and the deep tendon reflexes were 3 plus; no pathologic reflexes were noted. One-half hour after admission, i.e., at 10:30 p.m., 20 mg. of ACTH in 1000 cc. of 5 percent glucose in water was started. At 11:00 p.m., the blood pressure was 110/90 and the pulse was 100, but the patient still apeared to be in shock. At 8:00 a.m., on the following day, the patient was awake and groaning; the pupils remained unequal.

Comment: Despite the apparent circulatory depression manifested by the extreme lowering of blood pressure this case was placed in Group II. There was a rapid rise in blood pressure with the use of ACTH. It was not known if morphine was taken simultaneously with Seconal®. A good response was obtained.

GROUP III: In this group of 3 patients is included those in whom all or most of their reflexes were absent, but who had no depression of respiration or circulation.

Case VI — D. G., a 27 year old white woman, was admitted to the hospital July 26, 1952, at 5:30 o'clock in the afternoon. She had taken an unknown amount of pentobarbital sodium 75 minutes previously after having drunk an unknown amount of alcoholic beverages. Her rectal temperature was 99° F., pulse 96, and respiration 24. The heart and lungs were normal. The pupils were miotic and did not respond to light; the muscles were flaccid, the response to pain was absent, and the deep tendon reflexes were absent but the pharyngeal reflex was present. At 8 a.m., the blood pressure was 90/60, and pulse 96. ACTH, 20 mg. in 1000 cc. of 2.5 per cent dextrose and 0.4 per cent saline, was begun. Two hours later at 10:00 a.m., the biceps, triceps and radial reflexes were 2 plus, and the pupils reacted to light. At 11:00 a.m. the patient responded to painful stimuli and the knee jerk, ankle jerk and plantar response had returned. The blood pressure had risen to 120/60, pulse 84, and respiration 12. At 10 o'clock that evening, 14 hours after ACTH therapy was begun, the patient was semicomatose and at 7:00 a.m., the next day, the patient was fully awake and the reflexes had returned to normal.

Comment: Good response was obtained to ACTH therapy alone.

GROUP IV: In this group of 4 patients is included those in whom all or most of their reflexes were absent and who had respiratory depression with cyanosis, or circulatory failure and shock, or both.

Case IX — C. H., a 28 year old negro woman, was admitted to the hospital June 17, 1952, at 2 o'clock in the afternoon, having taken Nembutal® gm. 1.0 and an undetermined amount of morphine sulphate at an unknown time. On admission her rectal temperature was 99.4° F., pulse 100, respiration 22, and blood pressure 85/60. The skin was cold and cyanotic, and the pupils were markedly constricted and did not react to light. The muscles were flaccid, there was no response to painful stimuli, and the deep tendon reflexes were absent but no pathologic reflexes were elicited. The antecubital veins were thrombosed. The patient was given picrotoxin 3 mg., 1000 cc. physiologic saline solution, and 4 cc. N-allynormorphine HCl prior to instituting therapy with ACTH. At 3:55 p.m., 65 mg. ACTH in 500 cc. physiologic saline was given intravenously. Ten minutes after starting ACTH therapy, the blood pressure was 134/80, the pulse was 1 plus, and ankle reflexes were present. During administration of ACTH, the patient received 33 mg. picrotoxin, 5 cc. Metrazol® per intravenous route, and 100 mg. Benzedrine Sulfate® by rectum. On the following day at 9:00 a.m., 17½ hours after instituting therapy with ACTH, the patient mumbled, the blood pressure was 120/80, pulse 80, and the deep tendon reflexes were 1 plus.

Comment: A good result was obtained in this seriously depressed patient who received supportive therapy and specific morphine antidote, in addition to ACTH.

Case XI — E. K., a 46 year old white man was admitted to the hospital September 1, 1952, at 7:30 in the evening, having taken an unknown amount of phenobarbital some time prior to admission. His pulse was 104, blood pressure 92/56, and respiration 8. The thyroid isthmus was moderately enlarged and the gland soft to touch. The pupils were markedly constricted and did not react to light; the muscles were flaccid and there was no response to pain; the pharyngeal reflex was absent but the deep tendon reflexes were 3 plus. At 7:40 p.m., 20 mg. ACTH in 1000 cc. of 5 per cent glucose in water was begun. At 8:00 p.m., a gastric lavage precipitated laryngospasm and an endotracheal intubation was done. Tracheotomy was deferred in view of the enlarged thyroid gland. At 7:30 a.m., the pulse was 92, blood pressure was 110/60, and respiration 3. At 12:30 p.m., the blood pressure and pulse rate remained the same, but the respirations had increased to 6 per minute. At 2:00

p.m., 6 mg. picrotoxin was given intravenous. The patient's condition remained poor and he died at 8:30 p.m., 25 hours after admission.

Comment: Marked respiratory depression probably was cause of fatal outcome.

RESULTS

The overall mortality rate in the present series was 8.3 per cent, while the mortality rate in Group III and IV together was 14.3 per cent. However, this is not statistically significant because of the small number of cases. The morbidity rate was markedly decreased since those who survived recovered in less than 24 hours. This compares favorably with a much larger series of 144 patients with barbiturate poisoning admitted to the Cook County Hospital during 1950 and 1951 and treated by the usual methods. In the latter series the overall mortality was 12.1 per cent and in Group III and IV was 47 per cent. The morbidity in this conventionally treated series was also significantly greater since 30 per cent of patients required more than 24 hours to recover.

In 7 of the 12 reported cases, adjunctive therapy usually recommended for barbiturate poisonings[2-11] had been given and may have contributed to the patients' recovery. This is especially true for Case IX; in Cases II, III, X, and XII it seems unlikely, and in Case VI no conclusions can be drawn as the exact quantity of the ingested agents is unknown.

How ACTH works in barbiturate poisonings can only be theorized. However, we offer the following:

1. Alcoholic beverage consumption in conjunction with barbiturate ingestion was noted in 6 cases, i.e., II, IV, VI, VII, X, and XII. It is known that alcohol enhances the barbiturate effect. ACTH has definite beneficial effect in the treatment of alcoholism and may also antagonize the synergistic effects of alcohol[11-18].
2. ACTH increases the glycogen storage of the liver which must detoxify most of the barbiturates[19-21]. In all of the cases except IX, some form of intravenous glucose solution had been administered, further helping to protect the liver.
3. ACTH had no effect on the blood pressure per se[22-25] but intravenous infusions aided in elevating the blood pressure in patients with shock or hypotension.
4. ACTH produces progressive increase in glomerular filtration[26-28] which may help eliminate those barbiturates which are partially excreted by the kidney.
5. ACTH improves cerebral stimulation[29-35] and thereby decreases the morbidity period.

Except for Case IX, the ACTH dosage was small and as such would not be harmful to the body. A single dose as high as 200 mg. produces no harmful effect.

SUMMARY AND CONCLUSIONS

This is a report of 12 patients with barbiturate poisoning treated with ACTH in some type of intravenous solution, with favorable results. The series herein is too small for final conclusions. However, since the morbidity and mortality are lower, it is strongly recommended that further investigation be done on the use of ACTH in acute barbiturate poisonings. Studies should include the antidotal mechanism of ACTH in terms of medullary (respiratory and circulatory) effect, cortical (awakening) effect, and barbiturate destruction.

In view of the one fatality reported in this series, it is cautioned that should no signs of improvement occur in the first six to eight hours after initiating ACTH therapy, one should administer the usual recommended analeptics, such as picrotoxin and Metrazol; according to statistical data the mortality rate is directly proportional to the duration of coma.

25 E. Washington St. (A.B.)

REFERENCES

1. Reed, C.; Driggs, M. F., and Foote, C. C.; Acute Barbiturate Intoxication: A Study of Three Hundred Cases Based on a Physiologic System of Classification of the Severity of Intoxication, Ann. Int. Med., 37:290-303, 1952.
2. Roche, M.; Wynee, I. C., and Haskins, D. M.: Therapy of Acute Barbiturate Poisoning; Report of Three Cases, Ann. Int. Med. 33:73, 1950.
3. Conferences on Therapy; Treatment of Barbiturate Poisoning, Am. J. Med. 1:93, 1946.
4. Kappanyi, T., and Frazckas, J. F.: Acute Barbiturate Poisonings, Analysis and Evaluation of Current Therapy. Am. J. M. Sc. 220:559, 1950.
5. Burdich, D. L., and Rovenstine, E. A.: Picrotoxin in Barbiturate Poisoning, Ann. Int. Med. 22:819, 1945.
6. Freireich, A. W., and Landsberg, J. W.: Amphetamine Sulfate for Acute Barbiturate Poisoning, J.A.M.A. 131: 661, 1946.
7. Newman, E. A., and Feldman, M.: Massive Picrotixin Treatment of Acute Barbiturate Poisoning, Arch, Int. Med. 81:690, 1948.
8. Jones, A. W.; Dooley, J., and Murphy, J. R.: Treatment of Choice in Barbiturate Poisoning, J.A.M.A. 143:884, 1950.
9. Arneth, J.H.: Ephedrine and Picrotoxin Used Successfully in Amytal Poisonings, J.A.M.A. 101:1597, 1933.
10. Koppanyi, T.; Linegar, C. R., and Dille, J. M.: Studies on

Barbiturates: Analysis of Barbiturate Picrotoxin Antagonism, J. Pharmacol. Exper. Therap. 8:199-228, 1936.
11. Editorial: ACTH and Adrenocorticoe Hormones in the Treatment of Acute Alcoholic States, J.A.M.A. 143:1160 (July 29) 1950.
12. Fischbach, K.; Simmons, E. M., and Pollard, R. E.: Delirium Treated with Intravenously Administered Corticotropin (ACTH), J.A.M.A. 149:927-928 (July 5) 1952.
13. Lovell, H. W., and Tintera, J. W.: Alcoholism: Recent Advances in its Treatment, N. Times 80:191-199 (April) 1952.
14. Simon, W., and Pearson, R. T.: Adrenal Cortex Extract Therapy in Acute Alcoholic States, Dis. Nerv. System 12:311-314 (Oct.) 1951.
15. Smith, J. J.: The Treatment of Acute Alcoholic States with ACTH and Adrenocortical Hormones, Quart. J. Stud. on Alcohol 11:190-198, 1950.
16. Feldman, D. J., and Jucker, H. D.: Present-day Medical Management of Alcoholism, J.A.M.A. 153:895-901 (Nov. 7) 1953.
17. Smith, J. J.: The Endocrine Basis and Hormonal Therapy of Alcoholism, New York J. Med. 50:1704-1706 (July 15) 1950.
18. Smith, J. J.: The Role of the Adrenal Gland in Alcoholism, Proc. 1st Clin. ACTH Conf., Philadelphia, Blakiston, 1950. pp. 566-574.
19. Bolinger, R. E., and Delp, M. H.: The Effects of ACTH on Liver Function, J. Kansas M. Soc. 52:99-106 (March) 1951.
20. McQuarrie, I., et al.: Further Studies on the Effect of ACTH on Spontaneous Hypoglycemosis, Proc. 2nd Clin. ACTH Conf., Philadelphia, Blakiston, 1951, Vol. 2, pp. 69-80.
21. Tronchetti, F., and Fiaschi, E.: Corteccia surrenale e glicogenogenesi epatica; l'influenza dell'ormone corticotropo ipofisario su la glicogenogenesi epatica nell'animale alimentato con glicosio. (Adrenal Cortex and Hepatic Glycogenesis; Effect of Pituitary Adrenocorticotropic Hormone on Hepatic Glycogenesis in Animal Fed with Glucides.), Folia endocrinol. 3:527-537 (Aug.) 1950.
22. Birchall, R., et al.: Renal Excretion of Water Sodium and Chloride. Comparison of the Responses of Hypertensive Patients with Those of Normal Subjects. Patients with Specific Adrenal or Pituitary Defects, and a Normal Subject Primed with Various Hormones, Circulation 7:258-267 (Feb.) 1953.
23. Dustan, H. P., et al.: Cortisone and ACTH in Essential Hypertension; Establishment of Renal Glycosuria, Arch Int. Med. 87:627-635 (May) 1951.
24. Freed, S. C.; Rosenman, R. H.; St. George, S., and Smith, M. K.: Effect of Cortisone and ACTH on Blood Pressure of Hypotensive, Potassium-deficient Rats, Circulation Res. 2:41-44 (Jan.) 1954.
25. Grollman, A., and Kennerth, A.: Effect of Cortisone and the ACTH of the Pituitary on the Blood Pressure in Experimental Renal Hypertension, Endocrinology 48:213-216 (Feb.) 1951.
26. Farnsworth, E. B.: ACTH and the Kidney, Illinois M. J. 99:263-264 (May) 1951.
27. Ingbar, S. H., et al.: The Effects of ACTH and Cortisone on the Renal Tubular Transport of Uric Acid, Phosphorus, and Electrolytes in Patients with Normal Renal and Adrenal Functions, J. Lab. & Clin. Med. 38:533-541, (Oct.) 1951.
28. Team, R. A.: The Effects of ACTH and Cortisone on Renal Excretion, J. Bowman Gray School Med. 9:92-102 (Octo.) 1951.
29. DeSalva, S., and Ercoli, N.: Brain Excitability (EST) in Normal and Hypophysectomized Rats and the Effects of ACTH Treatment, J. Pharmacol. & Exper. Therap. 110-13, (Jan.) 1954.
30. Pine, I., et al.: Electroencephalogram in ACTH and Cortisone Treated Patients, Electroencephalog. & Clin. Neurophysiol. 3:301-310 (Aug.) 1951.
31. Schieve, J. F.; Scheinberg, P., and Wilson, W. P.: The Effect of Adrenocorticotrophic Hormone (ACTH) on Cerebral Blood Flow and Metabolism, J. Clin Investigation 30:1527-1529 (Dec.) 1951.
32. Sensenbach, W.; Madison, L., and Ochs, L.: The Effect of ACTH and Cortisone on Cerebral Blood Flow and Metabolism, J. Clin. Investigation 32:372-380 (April) 1953.
33. Torda, C., and Wolff, H. G.: Effects of Various Concentrations of Adrenocorticotrophic Hormone on Electrical Activity of Brain and on Sensitivity to Convulsion-inducing Agents, Am. J. Physiol. 168:406-413 (Feb. 1) 1952.
34. Wayne, H. L., and Boyle, J.: Electroencephalographic Observations in Patients Undergoing Cortisone and ACTH Therapy, J. Clin. Endocrinol. 13:1070-1081 (Sept.) 1953.
35. Woodbury, D. M., and Sayers, G.: Effect of Adrenocorticotropic Hormone, Cortisone, and Desoxycorticosterone in Brain Excitability, Proc. Soc. Exper. Biol. & Med. 75:398-403 (Nov.) 1950.

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X-ray and leukemia

Dr. W. M. Court Brown described one particular investigation — that into the association between leukemia and therapeutic X-rays. This was a good example of the value of a statistical inquiry based on existing records. The survey was concerned with the fate of some 13,000 patients treated for spondylitis at 79 radiotherapy centers during a 20 year period, and showed that in these patients the mortality from leukemia was at least nine times the normal expectancy. Subsequent work had shown no such association with patients with spondylitis not treated with X-rays. It is reasonable to conclude, therefore, that the increased mortality from leukemia was the direct result of exposure to therapeutic X-rays. *Medical Statistics. Cancer and Leukemia. Brit. M.J. Oct.* 6, 1956.

Freedom in Medical Practice

DWIGHT H. MURRAY, M.D., NAPA, CALIFORNIA

ALMOST six months have elapsed since we last met to deliberate and act on medical affairs. The time has passed quickly, but not quietly.

The rumble of war and revolution has resounded in our ears. The din from political battles has been deafening.

All of us . . . sooner or later . . . learn that today's events do not just swirl around us, but involve each of us. As doctors we cannot get away from them by claiming that our only interest is in the sick, and that we cannot be bothered by political, social and economic problems. These matters demand attention from the doctor as well as the lawyer, the businessman, the newspaper editor, the labor leader and the worker.

If we are concerned about what happens on the international, national and local fronts — and we should be — then certainly we cannot afford to be disinterested in what happens in our own area of health and medical affairs. Yet there is apathy in our ranks.

REPLACE APATHY WITH ACTIVE, UNITED PROFESSION

Today there is a greater need for a united, forceful and informed profession than ever before. We have been caught in the throes of a social revolution which demanded something for nothing. Changes have been taking place all around us, and medicine has not escaped unscathed.

For example, in a few days Public Law 569, the bill providing medical care for military dependents, becomes effective throughout the land. Contracts already have been signed with the government by the majority of our state societies. No longer can any doctor claim that this law does not affect him. No longer can he say that government laws really are not changing the practice of medicine.

Public Law 880, better known to all of us as H.R. 7225, is another case in point. Medicine now is facing the problem of protecting the taxpaying public from abuses and of co-operating with the government to carry out the provisions of the law. The law is now on the books, and we must provide the leadership necessary to make it work as well as possible.

It was encouraging to hear Ezra Taft Benson, Secretary of Agriculture, say last week before the American Association of Land Grant Colleges and Universities:

"Sooner or later, the accumulation of power in a central government leads to a loss of freedom . . . Raids on the federal treasury can be all too readily accomplished by an organized few over the feeble protests of an apathetic majority. With more and more activity centered in the federal government, the relationship between the cost and the benefits of government programs becomes obscure. What follows is the voting of public money without having to accept direct local responsibility for higher taxes. . .

"If the present shift of power from state to federal authority which started 25 years ago is allowed to continue, the states may be left hollow shells."

It was encouraging to hear such comments from a member of the President's Cabinet. I only wish that all members of the official family, and more important, every member of the United States Congress, felt the same way.

The expression of this philosophy, with which medicine so heartily agrees, sounds good, but putting it into practice is the thing we are really interested in.

Today the medical profession along with business and industry is caught between those who desire to promote sound government programs and those who desire even more intensely to perpetuate party power. Unfortunately, in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedoms. Medicine must do its utmost to reverse this trend.

Address of The President, A.M.A. Clinical session, Seattle, Washington, Nov. 27, 1956.

MEDICAL FREEDOM ESSENTIAL

In my travels around the country as your representative the last 18 months, I have seen little dissension or rancor within our ranks. However, I must report that I have seen too much complacency over governmental encroachment into medical affairs. And I am deadly serious when I say to you that apathy by the few, or by the many, can be detrimental to all.

No nation can merely reap the benefits of freedom; it also must sow seeds of freedom.

In medicine the situation is the same. If an apathetic medical profession takes its freedom for granted, it will be the beginning of the end. A strong, free profession must work for freedom so that it may live in freedom. And history tells us that once medicine loses its freedom, other fields of private endeavor are immediately in danger.

I do not wish to paint a dark or distorted picture of medicine's free status and its stature in America today. But I do believe words of caution and an appeal for vigilance are in order.

The road of apathy and disunity can only lead to disorder and perhaps disintegration, and we must sound a warning to all our colleagues who don't care, or who are pulling in the opposite direction. The road of alertness, action and unity is the proper road for all of us to be traveling together.

If I had just one wish for the coming year, it would be to command the time and talents of the 160,000 physicians in the American Medical Association. I would set us all to the task of emphasizing and re-emphasizing the absolute necessity of patient and professional freedom.

PATIENT'S RIGHT TO CHOOSE HIS DOCTOR

I believe it is one of our prime responsibilities to prove to our patients that their right to choose their doctor is a most important one.

Free choice brings a bond of confidence between doctor and patient which no compulsory medical system can create. It means that the patient knows the physician will be interested in him as a person, not as just a serial number or the 2:45 appendicitis case.

For the doctor free choice means that the patient has selected him for his abilities, training, sincerity and personality. When a patient comes into my office, I know he has made a choice. And from that moment there begins a physician-patient relationship of the highest order. To me the patient is someone special, and I in turn hope that I am someone special to him.

Once the patient has made his choice, the physician automatically assumes an unqualified responsibility to the patient. No system of medical care that uses a third party to bring doctor and patient together can match our kind of cooperative performance for the treatment of illness, the cure of disease and the betterment of the patient's health.

Freedom to select a doctor is part of everyone's great freedom to choose — to choose what he wears and eats; where he works and worships, and how he votes. Take away any part of this freedom and great damage is done to our democratic system.

FREE CONDUCT IN MEDICAL TREATMENT

Another freedom closely tied to freedom of choice is freedom in the conduct of medical treatment.

At the recent meeting of the World Medical Association in Havana, Cuba, Dr. Rolf Schloegell of Germany made a stirring defense of free conduct of medical treatment. He told us that the medical profession believes the attending physician alone is competent to decide what measures he deems necessary and will apply in order to bring about the desired improvement. He warned too of the danger of excessive restriction on the freedom of the patient and the attending doctor.

Yet the trend toward extending social security in the medical care field has been steady and has accelerated since the end of World War II.

The dangers of shifting responsibilities for medical care from the patient and doctor to the government are obvious. The caliber of medical care cannot be as high when both patient and doctor are dependent upon government. Initiative succumbs to dictation, and self-reliance is replaced by the crutch of government.

We do not deny that there is an area of legitimate concern by the government for the health and welfare of the people. But each year government seems to extend that area. We get some idea of this expansion from the new federal medical budget.

This year, according to our Washington Office, the average family will be paying $54.61 for the U. S. Government's health and medical

activities. And the total expenditures this year amount to 2½ billion dollars — 290 millions more than last year. Even in an overall federal budget of 61 billion dollars, the total health cost of 2½ billions is not insignificant. It is a billion dollars more than the cost of running the Commerce Department, half a billion more than the Agriculture Department and six times more than the Interior Department's budget.

Many expenditures obviously are necessary to keep up our unsurpassed public health standards, and research may pay rich dividends in scientific discoveries. But there is no doubt that much money is being spent on medical activities that should not involve government participation.

The trend is to spend more and more government money on health and medical matters because it is good politics. Apparently many Americans still want to see government in the role of a big brother, dishing out so-called gifts and bargains under the guise of benevolent economic planning.

I believe it is our duty, as it is everyone else's, to combat the attitude of "what's in it for me?" and to promote the long-honored creed of "what's best for all Americans and our free society." I think that a nation can drift into state medicine inch by inch just as surely as if the scheme were foisted upon a people overnight. The "drift" method may take longer but the result will be the same.

So it is time all of us sounded the alarm against soft and superficial security and against the invasion of personal responsibility. It is time we stood up together for militant freedom and for full rights and responsibilities of the individual.

BELGIAN DOCTORS TURN BACK GOVERNMENT

There is no better example of what a unified medical profession can do than in the story of the recent fight of the Belgian doctors against the government's proposals for a state service of medicine.

Without consulting the medical profession the Belgian government proceeded to draft rules and regulations of health to be incorporated in the nation's social security legislation. Under the proposals doctors were to sign an agreement to abide by the present rules and any later regulations. For the patient there would be the usual red tape in getting medical care.

When the Belgian doctors learned of the scheme, they met in conference with the government. They told the government what they wanted and what they would not accept. The government agreed.

For several months everything was quiet. Then the Belgian doctors suddenly read about the new health bill that the government was sending to Parliament. It was quite contrary to the earlier agreement worked out by the profession and the government. But the bill was passed quickly.

The Belgian medical profession protested and said it would not be placed under the Ministry of Labor. Instead the doctors proposed to set up their own plan of medical assistance.

Before long, the government saw that the medical profession meant business and that the doctor's plan was an attractive one. So it declared that its own bill was not in force and could not be in force without the consent of the medical profession.

To me this fight against legislative intervention in medical care is excellent evidence that the profession can defend itself if it unites to defend the basic principles of freedom and if it offers constructive proposals. By using the Belgian national motto, "in union there is strength," the medical profession showed doctors everywhere that dangerous government plans can be turned aside by the strong.

I also read recently in the Journal of the World Medical Association of the fight of the medical profession of Malta against a British government scheme to introduce a full-time salaried medical service, without the right of private practice, on an island dependency of Malta. Here again the doctors reacted with unity and strength, and successfully thwarted the government's plan.

There is a lesson in these stories from Belgium and Malta. They prove that a unified profession has a great political power for good — the good of the patient, the doctors and the nation.

CONFIDENCE OF PATIENTS, UNDERSTANDING OF LEGISLATORS NEEDED

While we are developing unity within our own ranks, I believe it is equally important to continue to build up the confidence and respect

of our patients, and to make our legislators aware of the necessity for freedom in medical practice.

Let us never reduce the quality of service we render to our patients, and never lose the personal touch in medicine. Where there is any opportunity to improve upon our medical care, let us seize it and show our abilities to do an outstanding job. Satisfied patient-customers will give us deserving support when we need it.

We also should realize that the destiny of medicine can be determined to a large degree in the halls of Congress. If this be true, then it is even more important that we take an even greater interest in those who elect the Congressmen. Sympathetic understanding of our position by federal legislators through the voting public will be an insurmountable deterrent to the forces supporting state medicine.

The day has come, gentlemen, when we can no longer look upon medical economics and social changes merely as issues to be considered during our limited leisure hours. Our interest in them cannot be superficial or intermittent.

We now must pay daily attention to these matters. Medical socio-economic affairs can no longer be just incidental with us. They must be a vital part of our life and of our profession.

Each of us, I believe, should dedicate himself to the words included in the oath of office taken by Presidents of the A.M.A.

"I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans."

As doctors, representatives to the A.M.A. and as spokesmen for the A.M.A., let's remember these words and live by them. And to alter a phrase of President Lincoln's only slightly: Let's make common cause to keep the good ship of medical freedom on this voyage, or nobody will have a chance to pilot her on another voyage.

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The role of the dentist in hepatitis

In this hospital at least, 30 per cent of apparent infectious hepatitis cases in adults actually may be cases of serum hepatitis. At the same time it shows that, out of 22 cases of serum hepatitis over a two year period, 15 (68 per cent) were due to exposure at a dentist's; and seven (32 per cent) to the actual administration of blood or plasma. It appears, therefore, that in this community, serum hepatitis following dental procedures is a considerable public health problem.

For prevention, chemical sterilization should be abandoned. Autoclaving is a choice method of killing the virus but of course it must be used properly. Boiling for more than half an hour may be sufficient. Cleaning of needles and syringes is important. Autoclaving of syringes and needles under conditions of proper moisture, temperature, and length of time, and using a different syringe and needle for each patient, may not be enough if the procaine itself has been contaminated. Since it has been recognized that only 1.0 X 10^{-4} cc. of contaminated serum is sufficient to produce serum hepatitis, and since syringe contamination in several ways has been well demonstrated, the step from syringe to procaine contamination is certainly plausible. If this has occurred, the procaine bottle with its contents can be autoclaved. We suggest that this be done routinely after each procedure in hospital practice, where many different individuals have the opportunity to use one bottle. *Francis E. Foley, M.D. and Ralph N. Gutheim, M.D. Serum Hepatitis Following Dental Procedures. Ann. Ind. Med. Sept.* 1956.

Ephedrine Serendipity

Ben Seid, M.D., Chicago

While reading Sigmund Freud's Letters to Wilhelm Fliess (1887 to 1902) the author was struck by several references in the introduction pertaining to the "naso-genital reflex neurosis". Fliess claimed that "varying symptoms, pains and disturbed functions of many organs had their origins in the nose and could be ended temporarily by anesthetizing the responsible area in the nose with cocaine". Fliess stated that "the etiology of sexual neurosis frequently assumes the form of the nasal reflex neurosis". He explained this frequency by assuming a special connection between the nose and the genital apparatus, and that "vasomotor endogenous alterations in the nose arose essentially from the sexual organs". A case in point is the vicarious menstruation from the nose in females.

Carrying this analogy further it was but a step to utilize medicaments for the nasal mucosa as intra-urethral instillations empirically. For many years urologists have searched for an ideal topical anesthetic for the urethra prior to instrumentation or cystoscopic work. Thus, the gamut has been run through cocaine and its many derivatives to antihistamines and hypnosis. The one detracting element was the length of time necessary for the anesthetizing agent to take effect- anywhere from five to 15 minutes. Reasoning that if the urethral mucosa were analagous to the nasal mucosa it might also be turgescent under varying conditions, it was decided to try increasing strengths of ephedrine preparations to provide detumescence of the highly vascular urethral mucosa, thereby enlarging the luminal caliber with resulting minimal traumatism by the instrument in use. It was found that a 1% ephedrine aqueous solution served ideally in that it took effect almost immediately and did not cause any significant rise in blood pressure readings even in hypertensive individuals. The incidence of bleeding was greatly reduced or entirely absent in most cases due to both the vasoconstriction and diminished traumatism from the instrument used. Combinations of ephedrine with various "caine" and antihistaminic preparations did not enhance the anesthetic action nor ease of instrument passage, but paradoxically seemed less effective.

Experiments in combination with other drugs are still going on and even better results may be reported at a later date. In the meantime here is a good solution for urologists to use in the urethra, perphaps the best for certain conditions.

RESUME

Aqueous ephedrine 1% is a valuable solution for instillation into the urethra prior to any urological procedure.

2400 S. Dearborn Street.

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Control of bronchiectasis

Planned medical treatment, especially antimicrobial therapy, can control even advanced cases of bronchiectasis, prevent or delay progression of the disease, and thus rehabilitate many patients. If given vigorously over a prolonged period, conservative therapy can accomplish cure in the early reversible stage of bronchiectasis which is mostly found in children following bronchopneumonic-atelectatic processes not necessarily associated with permanent structural damage. *Walter Finke, M.D. Bronchiectasis. Current Therapy (Howard F. Conn, M.D.)* 1956.

CASE REPORTS

Polyarteritis Nodosa Simulating Appendicial Abscess

R. E. THOMPSON, JR., M.D. AND B. E. MALSTROM, M.D., GALESBURG

THE antemorten diagnosis of polyarteritis nodosa is no longer a medical novelty. Although polyarteritis nodosa is still a rare entity, it is encountered often enough to warrant a high index of suspicion in any fever of obscure origin or clinical pictures involving multiple systems.

The following case illustrates an unusual presenting picture of this puzzling and unusual disease.

A 58 year old minister stated that except for fatigability he had felt well until ten days before admission. Then he noted a loss of appetite and a slight dull ache in the right lower quadrant of his abdomen. He did not have nausea, vomiting, or any change of bowel habits. He noted no blood in his stools. One or two days after the onset of pain, his right leg felt hot and feverish. There would be slight pain in the calf and swelling of the right ankle when he walked. The night before admission, he had a slight chill and felt he was running a fever. On examination, his personal physician discovered an abdominal mass in the right lower quadrant. He referred the patient for hospitalization and study.

About one year before this admission, the patient had been hospitalized elsewhere. At that time he had been told that he had an anemic condition and was placed on thyroid orally and liver and vitamin B12 injections. Family history revealed that his father had died at age 84 of unknown cause. The mother had died of pulmonary tuberculosis. The rest of the history of family and patient was not remarkable.

Physical examination revealed a rather pale white man who was weak and perspiring and who appeared acutely ill. Temperature was 101°, pulse 88, respirations 20, blood pressure 122/84. positive physical findings were as follows: There was a tender mass, approximately 8 cm. by 4 cm., in the right lower quadrant of the abdomen just above the inguinal ligament. Rectal examination revealed a small polyp on the posterior wall just inside the mucocutaneous junction. The entire left leg was slightly swollen and measured ¾ inch greater in diameter at the midcalf than did the opposite leg. There was a one plus pitting edema of the right ankle. No nodules were noted on the skin of the extremities or other parts of the body at this time. There was a small right inguinal asymptomatic hernia. Deep tendon reflexes and superficial skin sensations as well as superficial reflexes were normal.

Laboratory Studies and Course in the Hospital: On admission, red blood cell count was 3,590,000; hemoglobin 11.8 gm.; white blood count 14,750; differential count, 72 segs, 3 stabs, 23 lymphs, 2 monocytes. Urinalysis revealed specific gravity 1.031; albumin, sugar, and acetone were negative. Microscopic examination of urinary sediment was reported as negative.

Agglutination tests for typhoid, paratyphoid, and Brucella abortus were negative, as was the OX-19 agglutination on two occasions. Sedimentation rate was 36 mm. an hour (Westergren method). Repeated stool examinations for occult blood were negative. Prothrombin time was 19 seconds, 70 per cent of normal.

The impression when the patient was admitted was perforated appendicitis with abscess formation, although the findings were not considered typical.

The patient was treated with a low residue diet, elevation, and hot, moist dressings on the right leg. Penicillin, dihydrostreptomycin and later tetracyline, and erythromycin® were given serially. Vitamins, hematinics, and a short course of dicumearol were also given when progressive signs of edema and tenderness of the calf appeared. On his third day in the hospital, the patient complained of fleetings pains in his left calf and of various deepseated pains in other portions of both legs. Proctoscopic examination was negative except for the tiny polyp felt on digital examination. The polyp, on excision, proved to be a benign fibroepithelial growth. Barium enema revealed no abnormality.

Although the mass gradually disappeared in five days, none of the treatment appeared to affect the general course of the patient's disease. Complete blood count was repeated on three occasions, and there was no significant change in any of the cellular components. The temperature ranged daily from normal to 103°; a rise in temperature in the evening was associated with chilly sensations.

The obscure generalized symptoms and development of deep tenderness in the right calf prompted a biopsy of the right gastrocnemius muscle, which was performed on the patient's 21st day in the hospital. The pathologist's microscopic report (Dr. Franz Lengh) was: "Numerous sections fail to reveal any evidence of periarteritis nodosa." The patient's temperature slowly subsided. The patient, slightly improved and having been afebrile for one day, was discharged on his 25 th day in the hospital.

He was admitted a second time thirty days after his discharge. One week after leaving the hospital, he had noticed recurrence of a temperature of 101° to 102° each evening. The high temperature each evening had lasted for about a week and then had disappeared for about a week. Fever had recurred two or three days before second admission. The patient also had noted intermittent cramping abdominal pains and extreme fatigue and weakness when he tried to walk. He again had seen his personal physician, who found a marked anemia. The patient was readmitted for further studies and treatment.

Photomicrograph of lesion in this case demonstrating marked round cell infiltration and fibroblastic proliferation.

Physical examination at this time revealed a temperature of 101°, a small herpetic lesion of the lower lip, slight tenderness of the lower abdomen, but no masses were palpable in the abdomen. Over both lower legs there were small subcutaneous erythematous nodules. The largest was on the right upper thigh. A nodule on the left upper thigh appeared to be regressing. A specimen of the lesion on the left thigh was taken for biopsy.

Laboratory work-up revealed urine profile entirely negative. Red blood cell count was 2,930,000, hemoglobin 8.5 gm.; white blood cell count 11,900, 69 segs., 29 lymphs., 2 monocytes. Sedimentation rate was 39 mm. an hour. Blood NPN was 30, creatinine was 1.15 mg. per hun-

dred cc. Blood culture revealed no growth. The pathologist, Dr. Lengh, reported that the biopsy of the lesion of the left thigh indicated microscopic findings of polyarteritis nodosa. Two other pathologists concurred in this diagnosis.

After 1,000 cc. of transfused blood, the patient was discharged from the second admission on his 10th day in the hospital on hydrocortisone, 20 mg. twice daily. He was returned to the care of his personal physician with the suggestion that hydrocortisone be continued. Within 24 hours there was dramatic relief of symptoms. The patient has been able to work daily as a store clerk and to maintain his duties as a clergyman. After he had been on hydrocortisone for six months, an attempt was made to withdraw treatment. When treatment was stopped, the patient began to feel feverish and noticed the appearance of a nodule on the upper abdomen. Treatment with prednisone, 5 mg. twice daily, was then instituted with prompt alleviation of symptoms, and has been continued to date.

When last examined in July, 1956, more than one and one-half years after onset of symptons, the patient felt and appeared well. Blood pressure, general physical examination, chest roentgenogram, complete blood count, urinalysis, and electrocardiogram were within normal limits. Sedimentation rate was elevated to 42 mm. in one hour. Positive physical findings were as follows: There was a two plus bilateral pitting edema of the ankles with difficulty palpating the peripheral dorsal pedal and posterior tibial pulses. There were small varicosities extending up from the ankles over both legs and to the level of the iliac crests.

COMMENT

Since this patient has not been subjected to laporatomy and exploration is not planned, the nature of the abdominal mass must be left to conjecture. Speculation is that a mesenteric thrombosis, mesenteric aneurysm, or true appendicial perforation may have occurred as a result of the vascular lesions of polyarteritis nodosa, and that the mass disappeared during the healing process.

The Galesburg Clinic
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Acoustic trauma

The average worker who adapts himself to noise of a meter level below 90 decibels shows very little evidence of acoustic trauma or any other damage to his physiologic or psychogenic health. When the noise level is above 90 decibels, as in shipyards and machine shops, the worker is exposed to intensive noise, and acoustic trauma follows. With such workers, we find that some become inattentive and lose the faculty of listening. It is known that in some hysterical cases, subconscious negation of all or some stimuli to hearing may be present and results in unstable mentality with suggestibility of functional discord in hearing. In this situation, the patient believes his deafness is real. With the malingerer, we know that he is not too deafened and he can be caught by the malingering tests. In testing malingering workers, a small number of cases will be found in which repeated tests show discrepancies and inconsistencies, and the hearing loss will be out of proportion to the pathologic findings. When this is encountered, the psychogalvanic skin resistance audiometer can be used. With this test, the skin resistance induced by sound stimuli will reflect the response of the person to sound at the threshold level. However, this test is not acceptable in many cases of litigation. *J. Coleman Scal, M.D. Hearing Impairment in Noisy Environment. New York J. Med. Sept.* 15, 1956.

EDITORIALS

Malpractice problems

The time to avoid a suit for malpractice is before it occurs. If that cannot be done, the Westchester Medical Bulletin[1] has the following to say:

"Do you know what to do when a patient claims malpractice? Some doctors don't. They talk either too much or too little. While 'There's no foolproof system for avoiding a malpractice action,' concedes J. Joseph Herbert, chief legal counsel for the Michigan State Medical Society, '. . . there are several steps the physician can take to protect himself from the moment any patient indicates dissatisfaction.' "

1. If your patient so much as hints he thinks something is wrong, raise your guard immediately and treat him with polite but noncommittal formality. Remember that malpractice is defined as a breach of duty on the physician's part. A bad result is not proof in itself of a breach of duty. Above all, don't assume gratuitously the blame for a bad result. Speak in carefully chosen phrases.

2. At the first hint of a malpractice claim notify your insurance company. Don't wait until the word lawsuit is mentioned. Phone your carrier as soon as you think the patient might ultimately take action. The company's representatives will be glad to advise you what to do.

3. If suit seems possible, review your office records immediately. Then go to the hospital and examine all relevant records there. Full preparation has saved cases for many a doctor but if any lawyer other than your own asks to see your records, refuse.

4. Always be completely frank with your own lawyer and with your insurance company's lawyers. It is their job to help you, Herbert tells *Medical Economics*[2] readers. They can help you best only if they know all the facts — even the ones you may think unimportant.

5. Finally, if you are sued — or suspect a suit is brewing — seek out some of your own colleagues. Get their advice and help. Don't be embarrassed at telling them the whole story. They may be able to help you decide whether to settle or fight. And they may be able to testify for you, if that should prove necessary.

1. Westchester County M. Bull. 24:23 (June) 1956.
2. Med. Econ. 33:147 (May) 1956.

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Physicians should lead in highway safety

An interesting article appeared in the October 27 issue of The Journal of the American Medical Association on the subject of highway accidents and the physician's role in assuming leadership in their prevention. Recently it was announced that more than 40,000 Americans were killed in highway accidents during 1956, and many thousands were seriously injured. Every 14 minutes someone is killed, and every 25 seconds someone is injured on our highways. "Success in meeting the problem of ever-increasing in-

jury and death on the highways will require the co-operation of the best minds in medicine, highway engineering, and car design".

The A.M.S. has a new committee on the medical aspects of automobile injuries and deaths with Dr. Fletcher D. Woodward of Charlottesville, Virginia as chairman. Dr. Woodward said physicians might be the logical leaders in a coordinated movement because of their biological science background and their intimate knowledge of crash effects and the problems of human behavior that figure in smashups.

Governor William G. Stratton of Illinois has some very definite ideas relative to the reduction of highway accidents and fatalities. No doubt many of these will be presented to the legislature now in session.

Each year, unfortunately, too much emphasis is placed by automobile manufacturers on the increased horsepower ratings and in the top speed of cars. Also it is a well known fact that many accidents today are the result of teenagers speeding and drag racing on the highways. It is most likely that Illinois should have a maximum speed limit; however we must also remember that more attention should be paid to the cars travelling too slowly on our highways, a fact that is responsible for many accidents.

Quite a number of the state medical societies have committees on highway safety. The Illinois State Medical Society has a Committee on Traffic Safety, although to date the committee has been inactive. Physicians in Illinois should become more interested in the highway safety problems and take a more active part in efforts to lessen the current highway hazards.

These problems were called to the attention of the physicians attending the 1956 annual meeting of the Society last May when most of one afternoon was devoted to the discussions of highway accidents with speakers appearing who have devoted much time and effort toward trying to decrease these accident statistics.

Members of the Illinois State Medical Society Committee on Traffic Safety plan to co-operate with the A.M.A. committee in order to avoid duplication of effort. The committee also plans co-operation with the various departments of the State of Illinois involved in traffic regulation and safety programs.

As activities are stepped up and as the work progresses, further reports will be made to the membership of the Illinois State Medical Society through committee statements to the House of Delegates and through articles in the Illinois Medical Journal.

Prevention of traffic deaths is everybody's business, but particularly that of the medical profession where specialized knowledge denotes intensified interest and individual ability.

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Report of a special committee appointed by the Council of the Illinois State Medical Society

The Council of the Illinois State Medical Society appointed a special committee to review a report of the National Advisory Committee to Selective Service with regard to the increasing number of foreign graduates now taking internship and residency training programs within the United States. This committee was informed of numerous complaints from recent graduates of American medical schools, as well as from physicians engaged in active practice, to the effect they were being called into the service of the Armed Forces while the graduates of foreign medical schools were not entering service and fulfilling their military obligation.

According to information in the press, it is believed the Doctor Draft Law may not be continued beyond 1 July 1957. It is anticipated that the Universal Military Training and Service Act, as amended, which affects men born after 30 August 1922, will have special provisions incorporated in it concerning doctors. One of the proposals which may be suggested is that Selective Service Local Boards not call physicians under the regular draft law until a definite need arises for this group.

Statistics were presented showing how many hospitals are employing as residents the graduates of foreign medical schools, exchange visitors and those admitted to the United States on permanent visas. The majority of these residents have been found to hold no medical license of any kind within the United States. This group of residents is the one about which the Committee is receiving complaints.

The graduate of a school recognized by the American Medical Association is found qualified for military service without holding a li-

cense to practice medicine, but a graduate of a school not recognized by the American Medical Association must have a year of internship in a recognized teaching hospital and a full license to practice medicine in any state within the United States. Therefore, should the graduate of a foreign school not secure a full license to practice medicine, he will be found disqualified for military service and administratively rejected for service, going into a IV-F classification the same as one who is physically, mentally or morally disqualified.

Due to the large number in this group within the State of Illinois, it has become quite a problem because the majority of house staffs today are composed of foreign graduates. While not all of these individuals are purposely not securing licenses, there are many who may be avoiding licensure in order to escape military service.

We were informed that some other states are having the same problems, but the states having strict licensure enforcement within their hospitals have not found many of the foreign graduates entering their state. We also understand one state is having malpractice suits involving hospitals employing graduates of foreign medical schools who hold no license of any kind.

A question was raised as to what action would be taken in the State of Illinois should the insuring agencies of hospitals be informed of the tremendous number of physicians who are employed as residents but hold no license, when the state law requires all resident physicians to have some types of license. The staffing of institutions with foreign graduates holding limited or temporary licenses has also become a problem as these physicians are given such licenses and hold them for many years. Many of these individuals realize if they hold such licenses they will not be found qualified for military service. The Department of Registration and Education states: "A limited license may be revoked by the Department at any time after the holder thereof becomes qualified for examination for a regular license to practice medicine according to the terms of this act." It was found many individuals have held limited licenses for three or four years. It would seem if these persons were not qualified for full licensure within this time, they should not be retained at these institutions. Records show there are many graduates of foreign medical schools who have attempted to pass the State Board examination on five or six occasions and are apparently still employed as residents or house staff physicians within the state.

A detailed study has been made and we find there are approximately 178 persons currently engaged in residency training programs within the state who are not licensed to practice medicine. Of this number, a very few hold limited or temporary licenses. This figure does not include the residents in the employ of hospitals not approved for residency training by the American Medical Association, nor does it include physicians who have had years of residency training within the state and are now outside the state taking further specialty training. There are physicians within this group who have had as much as five years' residency training, and some who have completed residency training and are now taking further internship training. There are also cases of physicians who have completed residency training programs who are now being employed as assistants to licensed physicians in the state.

The committee was informed there are many physicians who have failed to register with Selective Service and because of this failure might escape their military obligation. Selective Service contacts and informs these individuals they must, within a reasonable length of time, register or show proof of having registered. Their failure to comply with this provision of the law makes them liable to prosecution by the Department of Justice. Every male person who is in or who enters the United States, and has received from any school, college, or similar institution of learning, one or more of the degrees of bachelor of medicine, doctor of medicine, doctor of dental surgery, doctor of medical dentistry, doctor of veterinary surgery and doctor of veterinary medicine; is not an exchange visitor or member of any reserve component of the Armed Forces of the United States; who on 16 October 1950 had not attained the fiftieth anniversary of the day of his birth, is required to submit to registration with the Selective Service System as a Special Registrant. Any person entering the United States who is one of the medical, dental or allied specialists listed above, shall present himself for and submit to registration before a local board within the period of five days follow-

ing the date on which he enters the United States.

It was pointed out that with the expiration of the Doctor Draft Law, liability for military service will cease for many physicians as the regular draft law affects men only until they reach their 35th birthday. Quoted below are the present Selective Service regulations showing in what order regular registrants are now selected for induction as enlisted men:

(1) Delinquents who have attained the age of 19 years in the order of their dates of birth with the oldest being selected first.
(2) Volunteers who have not attained the age of 26 years in the sequence in which they have volunteered for induction.
(3) Nonvolunteers who have attained the age of 19 years and have not attained the age of 26 years and who do not have a child or children with whom they maintain a bona fide family relationship in their homes, in the order of their dates of birth with the oldest being selected first.
(4) Nonvolunteers who have attained the age of 19 years and have not attained the age of 26 years and who have a child or children with whom they maintain a bona fide family relationship in their homes, in the order of their dates of birth with the oldest being selected first.
(5) Nonvolunteers who have attained the age of 26 years in the order of their dates of birth with the youngest being selected first.
(6) Nonvolunteers who have attained the age of 18 years and 6 months and who have not attained the age of 19 years in the order of their dates of birth with the oldest being selected first.

At this time Selective Service is calling only those in the first three categories and you will note they are not calling any regular registrant who has a child or children with whom he maintains a bona fide family relationship in his home, or who has exceeded the 26th anniversary of the date of his birth, with the exception of violators of the Act who are delinquents.

This committee does not believe a sufficient number of physicians will be available to fulfill the needs of the Armed Forces unless the draft law affecting all young men in the medical field is drastically rewritten. Under the current Doctor Draft Law deferment is not granted for fatherhood, since doctors are commissioned as officers and receive pay and allowances far higher than the young man who is inducted into service as a regular registrant. A doctor can be deferred for dependency under the present Doctor Draft Law only if it can be proved that his entering service would cause extreme hardship and privation to his dependents.

Selective Service informs us that anyone entering the country who was born before 15 September 1925 need not register under the general provisions of the Universal Military Training and Service Act, as amended. If a man is 26 years of age, or older, at the time of his registration with Selective Service, he is immediately eligible for a V-A classification, meaning his liability for military service has ceased. For a regular registrant to be liable for service until 35 years of age, he must have been in a deferred classification prior to his 26th birthday, which extended his liability. Therefore, any individual entering the country within the next year, who was born before 1931, will, in all probability, never have to serve in the Armed Forces unless he should choose to volunteer for active duty. We believe if the tremendous number of physicians who are graduates of foreign medical schools could be utilized by being made liable up to their 35th birthday, there might be sufficient numbers to meet the needs of the Armed Forces and in this way avoid having a special draft law which would call the older physicians.

The following recommendations were presented to the Council:

1. That recommendations be presented to the American Medical Association and the Federal Government that with the dropping of the Doctor Draft Law adequate legislation be written under the Universal Military Training and Service Act, as amended, to provide sufficient specialists to meet the needs of the Armed Forces — that all physicians under 35 years of age have an obligation to serve in the Armed Forces, including alien doctors who enter the country after their 26th birthday. This would be a more equitable law.

2. That necessary steps be taken to compel the Department of Registration and Education, and the American Hospital Association, to investigate the staffing of hospitals with unlicensed

physicians, so the practice of individuals taking unlimited amounts of residency training before becoming licensed will be stopped. We believe if these individuals are not permitted to remain in these hospitals without licenses, they will become fully licensed.

3. That the cases of physicians holding limited licenses for over two years be brought to the attention of the Department of Registration and Education for the purpose of taking steps to make it mandatory for them to become fully licensed within two years after having received a limited license, or have the limited license revoked.

Earl H. Blair, M. D.
Harold M. Camp, M. D.
Carl F. Steinhoff, M. D.
F. Lee Stone, M. D.

Number of college graduates entering medical practice

During the recent Institute on Evaluation of the Student, held under the auspices of the Association of American Medical Colleges at Colorado Springs, Colorado, in November 1956, some interesting data concerning the number of college graduates entering medical practice were presented by Dale Wolfle of the Association for the Advancement of Science. He pointed out that for the past 10 years the number of all college graduates who entered medical practice was only two per cent.

This is in contrast to the situation of 150 or even 75 years ago; from 1801 to 1880, at least 28 per cent of all college graduates started medical practice. It should be pointed out that from 1821 to 1840, the percentage rose to 35. After 1881, the percentage commenced to decline steadily until only two per cent of college graduates since 1946 are entering into the practice of medicine.

In studying these statistics, we should keep in mind that in the last century, most persons attended college specifically to train themselves for the professions such as medicine, law, and the ministry. More recently the trend has been to obtain college training for almost any walk of life one chooses to enter. Thus we should consider these figures in relation to the present day demand for college graduates by the business world.

Let us consider certain data that concern the estimates of the number of college graduates in future years. It is predicted that in 1965, only eight years from now, there may be 442,000 students graduated from college. This is a conservative estimate; another figure quoted is as high as 513,000. Parenthetically, it may be stated that it is predicted that in 1957 about 321,000 will be graduated from college.

If we assume that two per cent of the students graduating from college in 1965 will enter medical practice, the number would be at least 8,840. If we use the upper estimate, then as many as 10,260 persons might become practicing physicians and surgeons. Actually, the assumption that two per cent of future college graduates ultimately will practice medicine may be erroneous. It might be that because the percentage has decreased steadily since 1880, we should assume that the percentage will go even lower. But it might very well be that two per cent is a basal level, and we should use that figure.

In 1970, only 13 years from now, it is predicted that at least 540,000 students will be graduated from college; while a higher estimate predicts 687,000. Assuming that two per cent of these graduates enter medical practice, we have in the instance of the conservative figure, 10,800 or, in the case of the higher number, 13,740 new physicians in one year, or double the present rate.

These figures are impressive. If we may be allowed to extrapolate the date to estimate the number of medical students at any one time, it would appear that 13 years from now there may be a total of at least 43,200 persons (and perhaps even more than 55,000) studying medicine. These figures appear staggering but they are based upon the best evidence now available.

It is obvious that unless either existing medical schools substantially increase their enrollment, which does not seem likely or feasible, or more medical schools are established, it will be extremely difficult for all qualified young men and women who wish to become physicians to gain acceptance into medical schools. For that matter, due to the expected increase of the total population, there may even be an acute shortage of physicians. In view of these facts, the State of West Virginia is fortunate indeed that it is developing its medical center. *Edward J. Van Liere, M.D., West Virginia Med. J.*

The electrolung

Many children with cerebral palsy are unable to speak properly because they breathe between 60 and 80 times per minute. With such rapid respirations, continuous speech is impossible. The defect can be corrected with a new electrolung that superimposes a proper pattern of breathing and gives the child an opportunity to experience the proper rhythm. Once he learns how to breathe regularly, he has something to aim at on his own. The apparatus is being used at Northwestern University Department of Speech Correction and Audiology. One child with tension athetosis, who was totally inarticulate, developed socially acceptable speech after six weeks of treatment for one-half hour daily. Fourteen cases with this type of cerebral palsy have received electrolung therapy with good results.

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Andy Hall celebrates his 92nd birthday

Dr. Andy Hall of Mt. Vernon, Illinois, celebrated his 92nd birthday, on January 8, 1957. He graduated from Northwestern University Medical School in 1890 and is now on his 67th year of practice. He still maintains daily office hours, beginning at 8 a.m. He still attends medical meetings in many states, most recently the A.M.A. Clinical Session in Seattle, Washington.

Dr. Hall still goes fishing and hunting, and has no trouble in getting his limits in either game or fish. On his last trip to Tennessee he planned to fish two days but caught so many the first day, he was afraid he might not find enough fish lovers to take the entire catch, so he returned home, bemoaning the fact that he would not make another trip to his favorite fishing hole until early spring.

He also procured a license late in the fall to hunt pheasants, and when he returned after one hour with his limit in pheasants, he decided to spend the remainder of the day shooting quail, and again was quite successful.

Dr. Hall spent four years as director of the State Department of Public Health and for more than 20 years was a member of the Council of the Illinois State Medical Society. In 1949 he was selected as the A.M.A.'s "Doctor of the Year," and during the next year he traveled across the nation attending medical meetings and making many fine addresses. He was the first and, to date, the only chairman of the Fifty Year Club of the Illinois State Medical Society. In that capacity, he has presented many dozens of certificates and emblems to physicians who have qualified for membership in the organization.

We will all be glad to greet Dr. Hall in person at the 1957 annual meeting of the State Society when he will again preside at the luncheon meeting of the Fifty Year Club.

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Dr. E. K. Ellis honored by his county society

At the annual Christmas meeting of the Jackson County Medical Society, Dr. E. K. Ellis, retiring president was honored for his many years of service to his county medical society. A citation was presented to Dr. Ellis for his continuous service to the society as an officer from 1920 to 1956.

Dr. Ellis acted as secretary-treasurer of the society from 1920 to 1954, was elected president-elect in 1955 and acted as president during the past year. The society extended its greetings, best wishes and thanks to Dr. Ellis for his helpful and meritorious service over a period of 37 years.

For continuous service as an officer of a county medical society, this is indeed a long period of time, and your editors would like to receive information from other societies where a member has given services over a similar period of time.

We know of a few instances where a physician has been an officer of his component society over a period of at least fifty years, but not actually in continuous service.

We, too, offer our thanks and best wishes to Dr. E. K. Ellis for his fine services to a component society, and the many communications we have received from him in his long tenure of office as secretary.

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MEDICAL ECONOMICS

Medical research

The years since World War II have witnessed a revolution in medical research in the United States. The most significant aspects of this revolution relate to the substance of medical science itself — but the most interesting sideline is the volume of money now pinpointed towards research, as well as the source of this support.

Dr. James Shannon, Director of the National Institute of Health, United States Public Health Service, has recently presented a summary of this aspect of medical research. (Science 124: 1185-1190; Dec. 14, 1956)

Fifteen years ago, $40 million per year was spent on medical research. As of today, the sum total is $240 million per year. Where does this money come from?

Prior to 1940 the federal contribution was some $3 million, representing 7% of the total. By 1944 the total had reached $10 million per year, some 16% of the total amount spent on research.

The year 1947 may be considered the first year of the postwar era in medical research. Our government gave $28 million for this purpose, (32% of the total). By 1955 the total support of medical research had risen to $240 million, with the federal government's share being $113 million, or more than 40%.

During the years since World War II the larger philanthropies and health agencies have greatly expanded their support of medical research.

While the contribution of the well endowed foundations has declined, it is very significant that the increases in government support have not reduced the contributions from philanthropy, endowment, or private industry. In fact, private support for medical research has increased in the postwar period, although not in proportion to the expansion of federal aid.

Somewhat more than $40 out of every $100 for medical research is expended in medical schools and universities. These institutions spent about $100 million in 1955 for medical research. $75 million was spent in medical schools. Less than $20 million of the total of about $100 million expended in these institutions came from endowment. About 30 million came from all kinds of philanthropy, individual gifts, private health associations and foundations. Finally, the federal government contributed $55 million in 1955 toward research.

It is abundantly evident from these figures that academic research is largely dependent on sources of support which are not controlled by the institutions themselves. It seems quite probable that endowment income will not rise in the foreseeable future. One may question whether support from private philanthropy will rise markedly. It is highly probable that the two major sources of expanded support for medical research in the future will be corporate giving and federal funds.

The implications of this are quite obvious to

anyone interested in the proper approach to research.

Research in itself must possess a freedom that is out of proportion to all other freedoms. The investigator must have the privilege of working at his own speed; of continuing his search for the truth without being hampered by outside sources. He must be able to proceed on his own and must have the privilege of attacking a new idea as it develops.

It is well said, that "he who controls the purse strings has the power." What will the effect of government and corporate giving have — not only on the investigator but the type of investigation he conducts? We must recognize that the research grant and training programs have changed, are changing and will change in the future. Just as productive science is dynamic, so is a productive society and economy. Responsible administrators of both corporate and federal research programs have a very real and significant obligation to act so that their activities increase the productivity of research and the availability of training.

Administrators must act on the basis of sound, widely representative advice. Never in the history of medical science and medical education has it been so important that close, sympathetic understanding be sustained between private research groups, universities and medical schools, industrial research groups and federal agencies. The extension of federal aid to medical research and related training, over the past decade, has created a situation in which the actions taken federally are of such significance that wide participation in the decision making process is essential.

Dr. Shannon has certainly done us a tremendous favour in calling this problem to our attention.

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Blue Shield service contracts

Service type contracts are offered by 50 U.S. Blue Shield plans.

The Buffalo, N. Y. Blue Shield organization became a service program starting Nov. 1, 1956. This change from indemnity to service was the decision of the Buffalo Participating Physicians, who voted to accept the proposed change. Their vote was described as overwhelmingly in favor of the service program.

We in Illinois had better start thinking about this problem. What are your ideas?

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We live longer

The JAMA of Dec. 15, 1956 says that Doctors outlive other men. It is comforting to know this. In 1950 there were 204,450 physicians in the United States. In 1949 to 1951 there were 10,738 deaths. This was only 93% of the number expected based on the figures for the white male population in general.

In fact, life expectancy for physicians was better at almost every age level than it was for other men. The only group of physicians that had higher death rates than the rest of the male, non-physician population was the age group 60 to 69.

Heart disease and diabetes took their toll at this age level.

Well, to this worn out obstetrician these facts are quite comforting. All he has to do from now on is to conserve his coronaries, be on the lookout for cancer, and check his urine daily.

Lovely thoughts.

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Social and economic aspects of old age

Mr. Clark Tibbets, of the Department of Health, Education and Welfare, presents an interesting discussion of the social and economic aspects of old age, in the American Geriatric Journal, (4:871-876, Dec. 1956).

We all recognize that more people are living longer. We all recognize the medical aspects of this problem; but many of us are unaware of the social and economic problems relative to this group of people.

At the present time we tend to think of our geriatric patients as non-productive, semi-invalid and retired people. Since we hope that the life span will continue to lengthen and that our medical research will lead to a fuller life for such individuals, we had better make plans to help these people on an economic level.

Certainly physicians trained in geriatrics must be leaders in developing new ideas on this subject. It would be well to read this thought provoking article.

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Roland R. Cross, M.D., Director

Epidemic disease situation

Since this is the first meeting of a new year, a little stock-taking as to the epidemic disease situation may be in order. 1956 was the ninth successive year without any case of smallpox having been reported in Illinois. This contrasts with 31,304 cases reported in this State during the 9 years beginning with 1920. Last year there were 10 cases of diphtheria reported in Illinois and 289 cases during the past 9 years. This contrasts with 98,996 cases of diphtheria reported in the State during the 9 years beginning with 1920. Last year, 54 cases of typhoid fever were reported in Illinois with a total of 572 during the past 9 years. This contrasts with 16,747 reported during the 9 years beginning with 1920.

These statistics reflect a record of outstanding credit to the practice of preventive medicine. A sharp epidemic flare-up of diphtheria in Indiana late last summer and more recently in Michigan demonstrated that this disease is by no means abolished. Only diligence in maintaining a high level of immunity in the population will maintain control over it.

Typhoid fever is more difficult to manage than is diphtheria. Detection and continuous surveillance of carriers and maintaining a high level of sanitation, especially of milk and water supplies, are required to prevent an upsurge of this disease. The high mobility of the population and the trend toward urban concentration complicate this already complex problem. Detailed epidemiological study of every case and a continual vigorous program of sanitation are necessary to keep typhoid fever under control.

Complete freedom from smallpox like the near-freedom from diphtheria illustrates the great benefits which accrue from persistent and successful efforts at vaccination throughout the population. It appears now that similar results may be expected through an intensive and sustained vaccination campaign against polio.

Among other epidemic diseases, measles and chicken pox were widely prevalent during 1956. Except for the outbreak of polio in Chicago there was no substantial change in the incidence of other reportable diseases.

Advisory board on necropsy service

The first meeting of the Advisory Board on Necropsy Service was held at the Leland Hotel in Springfield on Friday, January 18. At that time the Board organized and then discussed legislative matters of interest to it.

Only 7 of the 9 members provided by the law have been appointed. These 7 were appointed on October 29, 1956. Since it was already late for the consideration of legislation which may come before the 70th General Assembly, it seemed wise to call the meeting without waiting any longer for the appointment of the two additional members.

Reported to the Council of the Illinois State Medical Society, Jan. 13, 1957.

Dr. David O. Holman, Springfield

Dr. Edwin F. Hirsch, Chicago

Dr. Jacob E. Reisch, Springfield

Rep. Bernard McDevitt, Professor of Medical Law, Loyola Medical College, Chicago

Mr. Clark Davis, Coroner of Grundy County, Morris

Mr. Joseph Hallett, Coroner of McLean County, Bloomington

Mr. Don Wikoff, Coroner of Champaign County, Champaign.

Yet to be appointed are two members with "interests and abilities in the field of forensic medicine" who are neither licensed physicians nor coroners.

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Concepts on research

During the 25 years that I have been associated with medical research, I have either learned or have had confirmed, two or three concepts. First, in medical research, the bottleneck is not lack of equipment or plant but lack of well trained, imaginative, and gifted investigators. You may have the finest equipment on earth, but it is still the individual investigator that is the important factor. We need more young people going into research in all fields than we now have in this country. For instance, in Russia, there are about 250,000 students entering college to study for the various scientific fields each year, and these are a selection from approximately 2,500,000 applicants. In this country we have approximately 60,000, or one-quarter this number of students entering college to study science each year, and this includes the medical sciences. Through the years the quality and quantity of laboratories and equipment have shown great improvement.

The second lesson is partly related to the first, that is, the future of medical research and therapy is increasingly tied up with these basic sciences, physics, chemistry, and mathematics, and medical education must be adjusted to these needs. We are lagging behind several countries in this respect, particularly Sweden and England, and probably Russia. It is time for us to establish in our medical schools professors of chemistry and biophysics with rank equal to that of the clinical professors and to see that the physical sciences become an integral part of the medical curriculum.

The third point I want to make, something I have always known, is that it is dangerous for an individual or a university to exert strong control over the direction of research activity. Freedom of the individual is a strong tradition in this country, and in no place is individual freedom more important than in research. It was not so long ago that I served on a research committee, and one member recommended that no research project be submitted in application for support, in or outside the university, unless the committee agreed it was a worth while study and approved the proposal. Fortunately, we were able to defeat this motion since the committee as a whole saw that it would take the heart out of any university to put this power into the hands of a committee. One large pharmaceutical company I know considers it worth while if one per cent of its research activity pays dividends in the form of an important new contribution to medicine. One cannot predict whether a piece of research is going to pan out or not. Accidental by-products of research sometimes are important, and I have seen many examples of them. *John H. Lawrence, M.D. Some Studies of Function and Structure in Medicine. Quart. Bull. Northwestern Univ. M. School. Fall* 1956.

THE P. R. PAGE

Edward A. Uzemack, Director of Public Relations

DID you ever wonder what it takes to be an ideal physician? Dr. P. H. Woutat of Grand Forks, North Dakota did and came up with a remarkable analysis of such an individual.

In his presidential address at a recent meeting of the North Central Medical Conference, Dr. Woutat painted an impressive verbal picture of the ideal M.D. He said:

"The ideal physician must, of course, be of fine and scholarly appearance, with great intellectual capacity, of faultless personal habits, and inspire the confidence of his patients and the respect of all others.

"He must be active in community affairs, taking his full part in Chamber of Commerce and service club functions, serve on and advise municipal and other governmental bodies as called upon, be active in local and state political affairs, be a good church worker and attend church frequently.

"He must be available on short notice for papers to local PTA and church groups, service and business girls' clubs, and all other groups and organizations interested in obtaining reliable information on medical subjects. He must, of course, take an active part in the various youth programs of the community.

"He must work on and contribute liberally and cheerfully to fund-raising campaigns for new hospitals, YM and YWCA's, old peoples' homes and nursing homes, give liberal support to the church and community chest, and help defray the deficit of the local ball club.

"He must be active in his local and state medical societies, attend meetings regularly, and accept officership and committee assignments eagerly and perform his duties quickly and with great tact and diplomacy.

"He must be faithful in attendance at hospital staff meetings, be ready to give carefully prepared scientific papers, serve on hospital committees cheerfully and efficiently, keep his hospital records complete in all details, and be prompt with carefully prepared lectures to the student nurses.

"He must be a good family man with a gracious and tactful wife who abhors mink coats and other vulgar extravagances, and must spend lots of time at home with his children.

"But above all this, he must never fail to give his patients the finest possible medical service, keeping abreast of medical progress by reading, attendance at medical meetings, and taking frequent postgraduate courses. He must be a tireless worker and improve his public relations by spending adequate time with his patients, answering urgent calls promptly, day or night, and by not keeping his patients waiting. This must all most certainly be done for what has been vaguely defined as a reasonable fee."

(Ed. Note — That's *some* doctor, Doctor!)

Why newsmen often grouse —

Jack Mabley, one of the more readable columnists for the Chicago Daily News, recently made an enlightening observation on one of the principal characteristics of newspapermen.

"The journalism books would call it a healthy curiosity," he wrote. "I'd call it a natural suspicion, a skepticism that comes from years of unrelieved exposure to windbags and phonies and crooks."

X-ray pioneer hailed as medical hero —

At least twice within recent months, Chicago newspapers have brought out of relative obscurity the remarkable story of Dr. William H. Grubbe, now 81, who is credited with being the first to use x-rays as a healing agent. Only four weeks after Wilhelm C. Roentgen announced the discovery of x-rays, Dr. Grubbe treated a Chicago woman suffering from breast cancer.

Since nothing was known about the dangerous cumulative effects of repeated exposure to x-rays, the Chicago physician incurred burns which have caused him to undergo more than 90 operations.

His upper lip is largely excised, and so is most of his nose and much of his face. His left hand is gone and there are only two fingers on his right hand. As tissue continues to die, he will be subjected to further operations.

Nevertheless, Dr. Grubbe remains philosophical. "It had to be someone," he says.

Radio and television materials —

County medical societies in television areas will have available in the near future a series of A.M.A. — produced animated filmed cartoons which carry 22-second health messages. The TV film will end with the line: "This is a health message from Blank County Medical Society and the American Medical Association."

Familiar nursery rhyme characters like "Humpty Dumpty" and "Jack and Jill" will be used to bring the latest word on such subjects as safety, first aid, food preservation, cold prevention and long life. If your society would be interested in offering such a film series to a local TV station, please write to the Director of Public Relations, Illinois State Medical Society, 185 N. Wabash Ave., Chicago 1, Illinois.

Modern surgery will be highlighted in a new, 13-program series of radio transcriptions which the A.M.A. is preparing for use over local stations. The series will be available for placement by county medical societies about March 1. It will enable the public to hear on-the-spot descriptions of actual surgical procedures.

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New sound film available

A simplified approach to complete vaginal repair is demonstrated in a new color film prepared by Drs. Stanley F. Rogers, Jack Moore and Warren Jacobs of the department of obstetrics and gynecology, Baylor University College of Medicine and Methodist Hospital, Houston.

The 20-minute long, 16 mm. sound film was prepared through a grant from Eaton Laboratories. It is available for showing to medical groups on request to the medical director, Eaton Laboratories, Norwich, N.Y.

While it is based on procedures developed and reported by many authors, the technic demonstrated by Dr. Rogers and his colleagues has been simplified, is attended by little blood loss and can be performed in a relatively short time.

CORRESPONDENCE

Chicago Medical Society's Annual Clinical Conference

The Annual Clinical Conference of the Chicago Medical Society will be held at the Palmer House, Chicago, March 5-8, 1957. Four full days of scientific papers have been scheduled, covering many subjects of general interest to all members of the medical profession. More than 30 guest speakers from outside the Chicago metropolitan area have been invited to participate in these presentations, in addition to a number from Chicago.

The usual large number of commercial exhibits will be displayed in the exhibition hall of the Palmer House, and there will be many fine scientific exhibits. There will be daily teaching demonstrations and medical color telecasts.

From 12:00 to 1:30 p.m. each day, there will be luncheons and round table discussions which have been so popular at previous Clinical Conferences. The annual dinner is scheduled for 7:00 p.m. Wednesday in the Grand Ball Room of the Palmer House, followed by entertainment, and dancing.

There will be no registration fee for members of the Chicago Medical Society and a minimal charge of $5.00 will be made to other registrants. The Woman's Auxiliary to the Chicago Medical Society will be on hand to welcome visiting ladies, and various types of activities are being arranged for them.

Dr. Eugene T. McEnery is general chairman of the Executive Committee which is composed of a considerable number of prominent members of the Chicago Medical Society.

The complete program for this fine conference may be procured by writing to the Secretary of the Chicago Medical Society, 86 East Randolph Street, Chicago 1, Illinois.

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Women's activities at the Clinical Conference

A cordial invitation is extended to all wives of doctors who plan to attend the Chicago Medical Society's Clinical Conference at the Palmer House in Chicago, March 5-8 inclusive.

The following is a partial list of what the Woman's Auxiliary to the Chicago Medical Society has planned for you when you accompany your husband to the Conference:

Tuesday, March 5 - 9:00 AM to 4:00 PM registration in Hospitality Room which will be open during these hours each day serving refreshments, giving you an opportunity to greet your old friends and make new ones. Card tables will be set up. Tickets for television and radio shows will be available.

12:30 PM "Fashion Plates And Platters" — beautiful spring fashion show and luncheon in Grand Ballroom of Sheraton Hotel. Tickets are limited. Reservations close Friday, March 1. $5.00 each from Mrs. Alfred Pagano, 241 Keystone Avenue, River Forest, Ill.

Wednesday, March 6 — 9:00 AM to 4:00 PM

registration in Hospitality Room. 2:00 to 4:00 P.M. one and one-half hour tour of Chicago Tribune newspaper plant.

Thursday, March 7- 9:00 AM to 4:00 PM registration in Hospitality Room.
Afternoon tour of Polish Roman Catholic Museum.

Friday, March 8 - 9 AM to noon, Registration in Hospitality Room which will be open until 2 PM.

The Committee, headed by Mrs. Richard Westland, chairman, Women's Activities of Clinical Conference and Mrs. Matthew Uznanski, our president, are most anxious to make your visit to Chicago an enjoyable one and we feel sure if you avail yourself of the above entertainment you will get to know us better and know our Chicago, too!

Mrs. Joseph Shanks,
Press & Publicity Chairman
Woman's Auxiliary to the
Chicago Medical Society.

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Clinics for crippled children listed for March

Twenty three clinics for Illinois' physically handicapped children have been scheduled for March by the University of Illinois, Division of Services for Crippled Children. The Division will count 17 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical social and nursing service. There will be 3 special clinics for children with cardiac conditions, 1 for children with rheumatic fever and 2 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

The March clinics are:

March 6 - Carmi, Carmi Township Hospital
March 6 - Centralia, Recreation Center
March 6 - Hinsdale, Hinsdale Sanitarium
March 6 - Jacksonville, Passavant Hospital
March 6 - Rock Island (Cerebral Palsy), Foss Home, 3808 - 8th Avenue
March 7 - Sterling, High School Field House
March 8 - Chicago Heights [Cardiac], St. James Hospital
March 12 - East St. Louis, St. Mary's Hospital
March 12 - Peoria, Children's Hospital (St. Francis)
March 13 - Joliet, Will County T. B. Sanitarium
March 14 - Sparta, Sparta Community Hospital
March 14 - Springfield, St. John's Hospital
March 19 - Alton, Memorial Hospital
March 19 - Shelbyville, Methodist Church
March 20 - Elmhurst [Cardiac], Memorial Hospital of DuPage Co.
March 20 - Evergreen Park, Little Company of Mary Hospital
March 21 - Rockford, St. Anthony's Hospital
March 22 - Chicago Heights [Cardiac], St. James Hospital
March 26 - Effingham (Rheumatic Fever), St. Anthony Hospital
March 26 - Peoria, Children's Hospital (St. Francis)
March 27 - Aurora, Copley Memorial Hospital
March 27 - Springfield (Cerebral Palsy), Memorial Hospital
March 28 - Decatur, Decatur-Macon County Hospital

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Chicagoans to speak at International College of Surgeons meeting in Mexico City

Eight Chicagoans will present scientific papers at the 10th biennial International Scientific Congress of the International College of Surgeons in Mexico City, Feb. 24-28.

The meeting will be attended by surgeons from all sections of the free world, according to Dr. Max Thorek, Chicago, secretary general and founder of the College. More than 300 from the United States are expected to participate.

Those surgeons from Chicago who will deliver scientific papers, and their subjects are:

Ross T. McIntire, executive director of the International College of Surgeons: "Research in Newer Methods of the Preservation of Red Blood Cells."

Otto L. Bettag, director of the Illinois De-

partment of Public Welfare: "Thoracic Surgery in the Mentally Ill."

Edward L. Compere, professor and chairman of the department of orthopedic surgery, Northwestern University Medical School: "Fractures and Dislocations of the Wrist."

Horace E. Turner, clinical assistant professor of orthopedic surgery, University of Illinois College of Medicine: "Useful Application of the Intermedullary Nail for Conditions Other Than Fractures."

Carlo Scuderi, associate professor of orthopedic surgery, University of Illinois College of Medicine; "Stem Prosthesis in Hip Surgery; the Indications and End Results."

Claude N. Lambert, associate professor of orthopedic surgery, University of Illinois College of Medicine: "Use of Upper Extremity Prosthesis in Juvenile Amputees." (Movie.)

Emanuel M. Skolnik, assistant professor of otolaryngology, University of Illinois College of Medicine: "Congenital Cysts and Fistulae of the Head and Neck."

Peter A. Rosi, associate professor of surgery, Northwestern University Medical School: "Management of Bleeding Peptic Ulcer."

The congress is being held in Mexico City at the invitation of His Excellency, Don Adolfo Ruiz Cortines, President of Mexico. It will combine an excellent scientific program by outstanding surgeons of the world with an opportunity to enjoy the show places of Mexico.

Four days will be devoted to the scientific program, to be presented at the University of Mexico. This will cover all phases of surgery. Blocks of rooms have been set aside in Mexico City's finest hotels for those attending. Social functions have been scheduled. For those who wish to see something of the country, two post-congress tours have been arranged.

In view of the large attendance which is expected, and the shortness of time, reservations should be made at once. To simplify the making of arrangements, the International Travel Service, Inc., Palmer House, Chicago 3, Ill., has been chosen to handle registrations for the congress, hotel reservations and travel.

Inquiries for further information should be directed to the International Travel Service, Inc.

Clinical Reviews

On April 1, 2 and 3 the Mayo Clinic and the Mayo Foundation for Medical Education and Research, will again present a three day program of lectures, discussions and demonstrations called Clinical Reviews.

The meeting covers problems of current interest in general medicine and surgery, and members of the American Academy of General Practice who attend, may obtain up to 21 hours Category 1 Credit.

Since registration must be limited, physicians who wish to attend should communicate at once with Mr. R. C. Roesler of Mayo Clinic, Rochester, Minnesota. There are no fees for this program.

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Inter-American Medical Convention

The Second Inter-American Medical Convention will convene at the Hotel El Panama, Panama City, Republic of Panama, April 3, 4 and 5th, 1957, under the sponsorship of the Medical Society of the Isthmian Canal Zone, a chapter of the American Medical Association since 1906. Colonel Charles O. Bruce, MC, USA, Chief Health Officer of the Panama Canal Company and President of the Medical Society, will act as keynote speaker at the invocation ceremonies, which will include addresses by the President of the Republic of Panama and by the Governor of the Panama Canal Zone.

Registration will take place at the Hotel El Panama at 9:00 a.m. April 2nd, the registration fee being $5.00. The program will be wide in scope, and on the order of a state medical convention in the United States. Speakers will be from North and South America, and all papers will be translated into both English and Spanish. For further information write to Dr. William T. Bailey, Chairman of the Convention Executive Committee.

Following invocation ceremonies, a lecture on "Surgery in Carcinoma of the Lung" will be given by Dr. William F. Reinhoff Jr., followed by a paper on "Surgery of Pulmonary Lesions Other Than Cancer" by Dr. Hawley H. Seiler.

On Wednesday afternoon Dr. Chester W. Emmons will discuss the problem of "Histoplasmosis," Dr. Irving J. Selikoff "Tuberculosis —

Therapy and Trends," and Dr. R. B. Turnbull "Post-Operative Infections."

Thursday morning will be devoted to a symposium on "Mass Casualty Management" by a team of research workers in this field from the U.S. Army Medical Centers at Walter Reed Hospital and Brooke Army Hospital. Colonel Joseph R. Schaeffer, MC, USA; Colonel James E. Graham, MC, USA; and Lieutenant Colonel Robert Pillsbury, MC, USA.

Thursday afternoon has been planned for a Tropical Medicine Panel, and will include a paper on "Amebiasis" by Dr. William A. Sodeman, a lecture on "Leishmaniasis" by Dr. Carl Johnson, and Colonel Victor Hirshman, MC, USA will discuss the problem of "Moniliasis."

On Friday morning, Dr. Joseph W. Kelso will discuss the problem of "Surgical Treatment of Cancer of the Uterus," to be followed by the radiologist's views as given by Dr. J.A. Del-Regato in his paper, "Status of Radiation Therapy in the treatment of Cancer of the Uterus." Dr. Edward Shanbrom will then read his paper on "Newer Aspects in Diagnosis and Treatment of Leukemia and Lymphoma."

On Friday afternoon, Dr. Frank Stelling will explain the "Orthopedic Management of the Polio Patient," Dr. Meredith F. Campbell will talk on "Obstructive Uropathies in Childhood" and Dr. Harold W. Brown will give his paper on "Visceral Larval Migrans."

In addition to the scientific papers, a full round of entertainment is planned for families who accompany the delegates. A buffet dinner for all the delegates and their families will be held in the patio of the Hotel El Panama on Wednesday evening. A luncheon for the visiting wives will be sponsored by the Doctor's Wives Club of the Republic of Panama at the Union Club at noon on Thursday, followed by conducted shopping and sightseeing tours by the same ladies through the exotic oriental shopping centers of Panama City. Sectional dinners of the various specialties will serve as a get together for like minds on Thursday evening, and this will be followed by a fashion parade in the El Panama patio by the Doctor's Wives Club of the Panama Canal Zone. Trips on ships transiting the Canal, deep sea fishing in the Bay of Panama, trips into the interior of Panama and many other such diversions are available.

Symposium to discuss "Fats in Human Nutrition"

"Fats in Human Nutrition" will be discussed in a symposium to be held March 15 in the Louisiana State University auditorium, New Orleans, under the sponsorship of the American Medical Association's Council on Foods and Nutrition.

Co-operating in presenting the symposium will be the Orleans Parish Medical Society, the New Orleans Graduate Medical Assembly, the School of Medicine of Louisiana State University, and the Tulane University School of Nutrition.

Speakers will include outstanding men in nutrition, biochemistry, pediatrics, heart disease, and other allied fields.

Special emphasis will be on fats, cholesterol, and atherosclerosis, according to Dr. Philip L. White, secretary of the Council on Foods and Nutrition. The meeting is especially planned for general practitioners and other physicians, nutritionists, educators, home economists, and others interested in nutrition.

The American Academy of General Practice is offering six hours of credit in category one to members of the Academy who attend the symposium.

Those interested in attending may get further information by writing the Council on Foods and Nutrition, American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

Care for the unwed mother

The Chicago Foundlings Home offers residential and nursery care, as well as adoption service for the unwed mother. It is the oldest and the only co-operative home of its kind in this part of the country, where homemaking is offered in lieu of a fee. It was founded in 1871 as a hospital for abandoned babies and mothers by Dr. George E. Shipman, a practicing physician in Chicago in the middle 1800s, who was appalled by the absence of any kind of care for foundlings at that time.

Upon recommendation of a physician, the Home will accept expectant mothers at any stage of their pregnancy. Medical care can be arranged with neighboring clinics in accordance with the mother's desire and financial situation.

A new Home is being planned in the Medical Center, in the near future, which will be located at 1750 West Polk Street.

Medical program combines with South Dakota pheasant hunting

The Hunter's Fall Medical Meeting sponsored by the South Dakota State Medical Association will be held at Mitchell, South Dakota during the first five days of pheasant hunting season in October, 1957.

The program is set up for out-of-state doctors and will feature morning scientific sessions, afternoon hunting and evening scientific and social sessions.

The registration fee is set at $100.00 which will cover the out-of-state hunters license, hunting guides, reserved hunting areas, several social events, and the scientific program. Motel and hotel space has been reserved, but registration is limited to the available housing.

The affair is not stag, but wives who hunt must pay the full registration fee and those not hunting, three-fourths of it. (This is necessitated by the tight housing situation.)

For details and reservations write to Mr. John C. Foster, Executive Secretary, South Dakota Medical Association, 300 First National Bank Bldg., Sioux Falls, South Dakota.

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No cause for alarm

Medical and dental students who are also Reservists have recently received a Department of the Army notice titled "Period of Alert for Active Duty for Members of the Army Reserve."

According to Col. James H. Kidder, Special Assistant for Reserve Forces to the Army Surgeon General, recipients of the notices should not be alarmed.

Under Section 233, Public Law 476, Armed Forces Reserve Act of 1952, as amended, members of the Ready Reserve are subject to involuntary order to active duty either in time of war or proclaimed national emergency. Since the nature of a national emergency, particularly in view of the overall world situation, cannot be predicted, each Ready Reservist should have his personal affairs in order, as he may be ordered to active duty in less time than the intended 30 day alert.

Medical and dental students, who also are Ready Reservists, are being reminded of the law as a routine measure and in no way should the action be construed as directly connected with any single international incident.

The Department of the Army policy as to delays for those being ordered into active military service is contained in Army Regulations 135-230 and in substance reflects the following:

"In an emergency, sound reasons may exist why some members of the Reserve components may be delayed temporarily in reporting for active military service. Responsible commanders decide each case based upon its merits. Full consideration of the needs of the service, of the individual, and of the national interest will govern."

"Sound reasoning" requires that medical and dental students be retained in their educational programs to the maximum duration possible, as determined by the extent of any concurrent situation. The value of such individuals not only to the military but also to the nation is greatly enhanced with the completion of each additional phase of their professional training.

The Army intends that medical and dental students who are in the Ready Reserve while enrolled in a graduate course or professional school will continue to be granted delays or renewals consistent with the above policy. This will also include those pursuing full time research in a technical or scientific field in which the Department of the Army has an interest.

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AMA approval announced for Army's general practice residency

Approval of the two-year Residency Program in General Practice at the U.S. Army Hospital, Fort Knox, Ky., has been given by the Council on Medical Education, American Medical Association according to information received by the Education and Training Division, Office of the Surgeon General of the Army.

This is the only residency program of general practice conducted by the Army Medical Service and has sixteen participants. The first year of the program is devoted to medicine and medical sub-specialties, including six months in pediatrics; the second, to surgery and surgical subspecialties, including six months in gynecology and obstetrics.

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AT THE EDITOR'S DESK

NEW drugs are being reported at a fabulous rate. Percodan is one of the latest analgesics; it is weaker than morphine but relieves pain faster and more effectively than codeine. Rolicton tablets are Searle's debut into the oral nonmercurial diuretic field. This product is indicated in congestive heart failure, ascites, edema of hepatic cirrhosis, premenstrual tension, nephrosis, sodium retention, glomerulonephritis, and toxemia of pregnancy.

Gantrimycin is Hoffman-La Roche's new double-spectrum antibacterial which provides Gantrisin plus oleandomycin. The latter is a new antibiotic that is active against gram-positive bacteria. Upjohn also has a new combination antibacterial agent, Alba-Penicillin. It contains penicillin plus Albamycin, a new antibiotic for use against bacteria that have developed resistance to other chemotherapeutic agents.

Pfizer's new chemical form of hydrocortisone is being incorporated into an ointment called Magnacort. It has been tested on more than 500 patients with a wide variety of dermatoses. Relief occurred in 89 per cent. Neo-Magnacort is the same product, with neomycin added. It is recommended for relief of skin inflammations caused by infection or with infection as a complication. Vaseline Lip-Ice is the first lip pomade to contain protective silicones.

New uses for old drugs continue to make press releases. The Mayo Clinic, for example, recently reported that aspirin is the best agent for relief of migraine attacks in children. When the attack starts, it must be administered in sizable dosage, such as one grain per year of age. Aralen (chloroquine) is the latest remedy for creeping eruption. This preparation has obvious advantages over cauterization, freezing, or excision of the active lesions. Isonicotinic acid hydrazide has been used successfully in coccidiodomycosis.

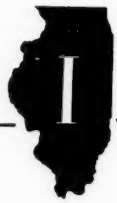
Lederle Laboratories are continuing to experiment with an attenuated live virus poliomyelitis vaccine. The substance has been used for six years on 600 persons varying in age from 5 days to 50 years, with no untoward reactions. The only conclusion reached is that encouraging progress is being made.

Diaphelic is a new name for an old method of immunization — via the nipple. Coffee is not completely devoid of vitamins. Twelve cups a day are said to contain the daily niacin requirements. British physicians are asking for a 25 per cent increase in service pay. The average general practitioner receives approximately $6,221.60 from all sources before taxes. Good luck. We hope they get the increment.

The Veterans Administration reports it has reduced the need for electric and insulin shock therapy for mental illness by an estimated 90 per cent through the use of the tranquilizing drugs. The Veterans Administration Research Hospital in Chicago announces a radioactive cobalt bomb that emits radiations equal to those given off by $30 million of radium. The ma-

(*Continued on page* 114)

NEWS of the STATE



ADAMS

Officers for 1957—Dr. Alfred S. Ash of Mendon has assumed office as president of the Adams County Medical Society, and Dr. Guy L. Tourney of Quincy has been named president-elect. Other officers chosen at the society's annual business meeting in December were. Drs. Julius P. Schoenebaum, first vice-president; Charles E. Richards; second vice-president; Robert C. Murphy, secretary; Harold Swanberg, treasurer; W. M. Libmann. account officer; W. U. McReynolds, editor; Hilliard M. Shair, editor; Carl W. Hagler, historian; Walter M. Whitaker, delegate; Robert W. Taylor, councilor and E. H. Keys, Jr., censor.

A dinner-dance was held by the society on January 25 at the Quincy Elk's Club.

COLES-CUMBERLAND

Dr. Alexander Assumes Duties—Dr. John R. Alexander of Charleston has taken up the reins of the Coles-Cumberland County Medical Societies as president for 1957.

COOK

$600,000 Grant for Fever Studies—A gift of $600,000 to Northwestern University for the study of rheumatic fever and related diseases has been made by a former attorney, Samuel Sackett of Evanston, Illinois. Dr. Roscoe Miller, president of the university, said he believes that this is the largest single grant made by an individual for such research. Sackett has been engaged in the development of oil properties in this country and Canada since the 1930s. In 1954 he established a $500,000 foundation to support studies in the cause and cure of rheumatic fever. The work was financed by the income from the fund. In his latest action, Sackett turned over the principal of that appropriation to Northwestern and added another $100,000.

Faculty Appointments at Chicago Medical School—Four faculty appointments have recently been made at the Chicago Medical School. They are Dr. Franklin P. Friedman, clinical assistant in surgery; Dr. Rhea Hilkevitch, clinical associate in psychology; Dr. Abraham J. Simon, associate in psychiatry, and Dr. Milton Miller, clinical assistant in medicine.

Heart Talks in Mexico City—Dr. Aldo A. Luisada, director of the cardiology division at Chicago Medical School, will give four lectures before the National Institute of Cardiology in Mexico City, February 18 to March 1. He will speak on recent progress in phonocardiography, evaluation of mitral valve defects by left heart catheterization, electrokymography in mitral and aortic valvular diseases, and the mechanism and treatment of acute pulmonary edema.

Teaching and Research Fund—A gift of $20,000 from Mr. and Mrs. David M. Copland of Chicago recently went to the Chicago Medical School to establish the David Copland Special Teaching and Research Fund. Mr. Copland is a retired executive of the General American Transportation Company.

Discuss New Workmen's Law—Dr. Joseph H. Chivers and Atty. John Fox discussed the proposed revision of the workmen's compensation act before a meeting of the Chicago Society of Industrial Medicine and Surgery at Chicago's Palmer House in January. They presented details of legislation sponsored by the Illinois State Medical Society, entitled the "Workmen's Compensation and Rehabilitation Act." Dr. Chivers is a member of the ISMS Committee on Industrial Health and Mr. Fox is a member of the Workmen's Compensation Committee of the Illinois State Chamber of Commerce.

Society of Medical History—Talks on "The History of Hemophilia in the Royal Family" and "The

Seat of the Soul" were presented in January at a meeting of the Society of Medical History of Chicago. Dr. Carroll L. Birch, professor of medicine at the University of Illinois, discussed the "bleeders," and Dr. Percival Bailey, director of the State Psychopathic Institute, delved into the secrets of the soul.

Borovsky Elected Chief of Staff—Dr. Maxwell P. Borovsky of Chicago has been named chief of staff of Cook County Children's Hospital. Professor of pediatrics and chairman of the Department of Pediatrics at Chicago Medical School, Dr. Borovsky is a graduate of the University of Chicago and holder of an M.D. degree from the Rush Medical College. He did postgraduate work in Vienna and Berlin and is a former faculty member of the University of Illinois College of Medicine. His contributions to medical literature in his field are extensive, and he is a past president of the Chicago Pediatrics Society.

Problems of Teenagers—Dr. Frederick H. Allen, director of the Philadelphia Child Guidance Clinic and president of the American Academy of Child Psychiatry, discussed the emotional problems of teenagers at the North Shore Health Resort, Winnetka, Illinois on February 6. His lecture was the fifth in the private psychiatric hospital's seventh annual series on "The Medical Practitioner's Contributions Toward Healthy Emotional Development."

Chicago Physicians Return from Abroad—Dr. William E. Adams, professor of surgery at the University of Chicago, returned from Europe in December after spending several months in Scotland as guest professor of surgery at the University of Glasgow. He also participated in medical congresses in Germany, Switzerland and Wales and gave lectures in Aberdeen, Edinburgh and Madrid. Last November he was made an honorary professor of surgery at the University of Madrid. Another Chicago physician, Dr. Huberta M. Livingstone, lectured on anesthesia at the University of Glasgow in September.

Joint Meeting on Children's Chest Diseases—The Chicago Pediatric Society held a joint meeting with the Illinois Chapter of the American College of Chest Psysicians at Children's Memorial Hospital in December. Speakers on the scientific panel were Drs. Eugene T. McEnery, J. Thomas Grayston, John J. Procknow, Alfred D. Biggs and I. E. Schapiro. They covered respectively the following subjects: Respiratory Infections in Children, Adenovirus, Histoplasmosis in Children, Primary Tuberculosis and Progressive Pulmonary Tuberculosis.

Talks on Physical Medicine and Rehabilitation—Dr. Louis B. Newman, chief of the physical medicine and rehabilitation service, Veterans Administration Research Hospital, Chicago, gave an illustrated lecture on "The Role of Physical Medicine and Rehabilitation in Neurological Disorders" before the St. Louis Society of Neurology and Psychiatry in December. He presented another illustrated lecture entitled, "Physical Medicine and Rehabilitation is Part of Total Patient Care" to the staff of the Veterans Administration Hospital at Jefferson Barracks, Missouri.

Santa Fe Medical Chief Moves to Chicago—Dr. John R. Winston, medical director of the Santa Fe Railway, has transferred his headquarters to Chicago from Temple, Texas. Dr. Winston joined the Santa Fe Hospital Association in 1933, was appointed chief physician for the road in 1946 and was elevated to system medical director in 1951.

Personalities—Dr. William L. Waner of Skokie has been elected president of the medical staff of St. Francis Hospital in Evanston. He served his internship at the hospital in 1925-26 . . . Drs. Fred E. Ball and Grant H. Laing of Chicago, and Dr. R. Kennedy Gilchrist of Evanston, have been appointed to the medical division of the $18,500,000 Presbyterian-St. Luke's hospital development program. Dr. Fred O. Priest of Oak Park and William J. Baker of Chicago were previously named as heads of the division . . . Dr. Eric Oldberg, chief of the neurology and neurological surgery department at the University of Illinois College of Medicine, has been named president of the Institute of Medicine of Chicago. Dr. H. Prather Saunders, a past president of the Chicago Medical Society, was elected vice- president . . . Six physicians of the Provident Hospital staff have been awarded service plaques commemorating a total of 225 years on the staff. The doctors honored, and the number of years of service, were: Pedro M. Santos (posthumously), 40 years; William Tate, Jr., 33 years; James M. Allison, 36 years; Homer P. Cooper, 37 years; Roscoe C. Giles, 38 years and T. Manuel Smith, 41 years . . . Dr. Benjamin M. Gasul, Chicago radiologist, has been given the top award in clinical investigation by the Radiological Society of North America for his exhibit showing x-ray studies of congenital malformations of the heart. His exhibit at the society's recent annual meeting in Chicago was prepared in collaboration with Drs. E. H. Fell, R. F. Dillon, C. J. Marienfeld, G. Hait, H. G. Bucheleres and V. Vrla, all of Chicago.

DEKALB

Talk on Abnormal Bleeding—Dr. Irving A. Friedman of the Hektoen Institute, Department of Hematology, Cook County Hospital, discussed the "Approach to the Patient with Abnormal Bleeding" at the January dinner meeting of the DeKalb County Medical Society in Sycamore.

DUPAGE

Panel On Heart Disease—The DuPage County Medical Society cooperated with the Chicago Heart Association last month in presenting a two-man

panel on "Surgery in Cardiac Disease—Indications and Results." Dr. Harry A. Bliss, assistant professor of medicine at the University of Illinois College of Medicine, discussed the medical aspect, and Dr. Orman C. Julian, associate professor in surgery at the same school, presented the surgical aspect. The dinner and scientific meeting was held at the Memorial Hospital of DuPage County in Elmhurst.

LAKE

Election of Officers—Dr. Clarence O. Edwards of Libertyville, has assumed office as president of the Lake County Medical Society. Other officials elected at the society's January meeting were: Drs. Asa L. Myers, Waukegan, president-elect; Sidney J. Kaplan, Waukegan, vice-president; M. J. McAndrew, North Chicago, secretary; James W. Kopriva, Antioch, treasurer; William R. Darnall, Waukegan, grievance committee chairman; John H. Schroeder, Waukegan, grievance committee member (one year); Edward E. DeLong, Waukegan, and Gerald S. Dean, Highland Park, grievance committee members (three years); Clarence O. Edwards, board of censors (three years); Donald C. Nellins, Waukegan, delegate to ISMS (two years), and Sidney J. Kaplan, alternate delegate (two years).

SANGAMON

Dr Mehn Speaks at January Meeting—Members of the Sangamon County Medical Society heard a discussion of "Operative Cholangiography" by Dr. W. Harrison Mehn of Chicago at their regular meeting last month in the Leland Hotel, Springfield. The annual memorial service was presented by Reverend Edward W. Ziegler, D. D. of Springfield's Westminster Presbyterian Church.

Dr. Thomas F. Harmon was named 1957 president of the medical staff at Memorial Hospital, Springfield, and Drs. Douglas M. Gover and Kane Zelle were elected vice-president and secretary, respectively.Dr. Robert E. Bowen, retiring president, will head the medical executive committee.

The medical society's officers for 1957 are: Jacob E. Reisch, president; W. P. Armstrong, vice-president, and William DeHollander, secretary. Delegates to ISMS are Kenneth Schnepp and Darrell H. Trumpe. Serving as alternate delegates will be Thomas F. Harmon and J. Marvin Salzman.

SCHUYLER

Election of Officers—Dr. C. K. Carey has been elected president of the Schuyler County Medical Society. Other officials for 1957 are: V. M. Corman, vice-president; Henry C. Zingher, secretary-treasurer; Joseph M. Zingher, delegate to ISMS, and Russell Dohner, alternate delegate.

ST. CLAIR

December Meeting—A discussion of the medicare program and election of officers featured the December meeting of the St. Clair County Medical Society.

Dr. Vivien P. Siegel, East St. Louis, was chosen president-elect. Other officials named were: Loraine E. Tegtmeier, Millstadt, vice-president; John S. Hipskind, Belleville, secretary; William E. Knaus, East St. Louis, treasurer; Stuart W. Mauch, East St. Louis, editor; Robert A. Chapman, Belleville and Matthew B. Eisele, East St. Louis, assistant editors.

Dr. Howard L. Lange, Belleville, was installed as president.

WILLIAMSON

Dr. Kane Heads Society for 1957—At the December meeting of the Williamson County Medical Society, Dr. Wendell Kane of Herrin was named president. He succeeds Martin May of Marion. Other officers are: Herbert V. Fine, Carterville, vice-president; Hosmer T. Merrell, Marion, secretary, and Martin Melvin May, Marion, delegate at large to ISMS.

GENERAL

Postgraduate Conference—Featuring case histories of diagnostic and therapeutic problems, the first Postgraduate Conference of 1957, arranged by the ISMS Committee on Postgraduate Education and Scientific Service, was held at the Richland Memorial Hospital in Olney on January 31.

Faculty members of the University of Illinois College of Medicine were the speakers in the scientific program, which was divided into three parts, pediatrics, medical and surgical. These phases were covered respectively by Drs. Heyworth N. Sanford, Robert C. Muehrcke and O. V. Renaud.

The Richland County Medical Society was host at a luncheon which preceded the conference. Dr. Frank C. Weber, president of the society, presided at the dinner meeting, at which Dr. Harlan English, 8th District Councilor, delivered an address on "Current Medical Problems Today."

Staley Co. Creates Post of Medical Director—Dr. John D. Bealer, a native of Pennsylvania and an industrial medical officer in the navy until recently, has joined the A. E. Staley Manufacturing Co., Decatur, as medical director, a newly-created post.

Dr. Bealer holds a medical degree from the Jefferson Medical College, Philadelphia, and a master's degree in public health work from the graduate school of Public Health, University of Pittsburgh.

Governor Appoints Dr. Albaum to New Post—Gov. William G. Stratton has named Dr. Joseph Albaum as superintendent of the Lincoln State School at Lincoln. Dr. Albaum has been serving as acting superintendent of the school since November, 1955. He first joined the school's medical staff in 1938.

Physician-Mayor of St. Charles Decides Not to Run—Dr. Ival G. Langum, 76, who has been mayor of St. Charles for 28 years, recently decided that nine terms of office were enough. He said that be-

cause of his age he did not feel up to tackling the job for a 10th successive term. Dr. Langum is a retired physician.

HEW Official Speaks in Chicago—Dr. Harold M. Graning, regional medical director, Public Health Service, Department of Health, Education and Welfare, addressed the Chicago Council on Community Nursing January 28 at the John B. Murphy Memorial Auditorium of the American College of Surgeons. His subject was: "In Sickness and In Health."

Lectures Arranged Through the Postgraduate Medical Education and Scientific Service Committee:

Frederick W. Slobe, member of the Committee on Medical Economics of the Illinois State Medical Society and Director of Blue Cross and Blue Shield, Will-Grundy County Medical Society in Joliet, January 10, on The Pro and Con of Social Security.

Oliver V. Renaud, assistant in the Tumor Clinic of the University of Illinois College of Medicine, Lee-Whiteside County Medical Society in Dixon, January 17, on Tumors of the Head and Neck Area.

Walter J. Reich, professor of gynecology, Cook County Graduate School of Medicine, LaSalle County Medical Society in Ottawa, January 24, on Office Gynecology.

Lowell F. Peterson, clinical instructor in obstetrics and gynecology at the University of Illinois College of Medicine, Knox County Medical Society in Galesburg, February 21, on Common Problems of the Delivery Room.

J. Henry Heinen, Jr., clinical instructor in orthopedic surgery at the University of Illinois College of Medicine, Rock Island County Medical Society in Rock Island, March 12, on Orthopedic Problems of Interest to the General Practitioner.

James E. Segraves, clinical assistant in bone and joint surgery at Stritch School of Medicine of Loyola University, Englewood Branch of the Chicago Medical Society in Englewood Hospital, April 2, on Problems with Three Common Fractures.

Robert A. DeBord, Peoria, member of the staff of St. Francis and associate staff of Methodist Hospitals in Peoria, Effingham County Medical Society in Effingham, April 8, on Thoracic Surgery in Infants and Children.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

Alice R. Dakin, clinical associate in pediatrics at Stritch School of Medicine of Loyola University, McPherson School Parent Education Class, January 8, on Your Child's Health.

Charles L. Maxwell, deputy director of Health, Illinois Civil Defense Agency, Woman's Auxiliary to the South Chicago Branch of the Chicago Medical Society, February 4, on Civil Defense.

Percy E. Hopkins, Chairman of the Committee on Medical Service and Public Relations of the Illinois State Medical Society, South Shore Temple, March 8, on Does Society Have a Responsibility for the Health of the Individual?

Marvin P. Padorr, assistant in pediatrics at the Chicago Medical School, Joyce Kilmer Parent-Teacher Association, March 11, on Physical and Emotional Development of the Child.

Y. T. Oester, associate professor and acting chairman of the Department of Pharmacology at Stritch School of Medicine of Loyola University, Toman Library Forum at Toman Branch Library, March 15, on Physiological Effects of Hydrogen Bomb Tests.

Groves B. Smith, Godfrey, superintendent of the Beverly Farm Home and School for Nervous and Backward Children, Okawville Parent-Teacher Association, March 21, on Sex, Morals and the Home.

DEATHS

Orville Everett Barbour*, Peoria, who graduated at St. Louis University School of Medicine in 1919, died October 12, aged 63, of heart disease. He was a specialist certified by the American Board of Pediatrics, member of the American Academy of Pediatrics, fellow of the American College of Physicians, past-president of the Peoria Medical Society and the pediatric section of the Pan-American Medical Association.

Otto Baumrucker, Cicero, who graduated at Dearborn Medical College, Chicago, in 1905, died November 3, aged 80, of coronary thrombosis. He was also a dentist.

Bruce T. Best, Arlington Heights, who graduated at Rush Medical College in 1904, died December 27, aged 80.

Mathew H. Bisdorf*, retired, Des Plaines, who graduated at Jenner Medical College, Chicago, in 1906, died December 28, aged 75. He was former chief of staff at St. Elizabeth's Hospital.

Douglas Boyd*, Highland Park, who graduated at Harvard Medical School in 1922, died December 20, aged 58. He was former chief of staff at the Highland Park Hospital, a past president of the Lake County Medical Society, a fellow of the American College of Physicians, the Institute of Medicine and the Chicago Society of Internal Medicine.

Clinton A. Elliott*, Chicago, who graduated at the Chicago Medical School in 1922, died December 30, aged 64. He was a member of the staff of the Woodlawn Hospital.

J. Omer Hoffman*, Chester, who graduated at the University of Arkansas School of Medicine, Little Rock, in 1934, died September 4, aged 49, of coronary thrombosis. He was past-president of the Randolph County Medical Society and vice-president of the medical staff of St. Clement's Hospital in Red Bud.

Leonard Kernis*, Chicago, who graduated at the University of Illinois College of Medicine in 1943,

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*Indicates member of the Illinois State Medical Society.

died December 22, aged 36. He was a specialist certified by the American Board of Anesthesiology and a member of the staff of Michael Reese Hospital.

Nathan K. Lazar*, Chicago, who graduated at the University of Illinois College of Medicine in 1927, died December 14 in Mount Sinai Hospital, Miami Beach, Florida, aged 58. He was a member of the staff of Passavant Hospital and assistant professor of ophthalmology at Northwestern University Medical School.

Raymond J. Meyer*, Chicago, who graduated at the University of Illinois College of Medicine in 1925, died December 23, aged 66. He was a member of the staffs of St. George and St. Bernard's Hospitals.

Donna M. Parker, retired, Peoria, who graduated at the State University of Iowa College of Homeopathic Medicine, Iowa City, in 1888, died in Wilmette, September 28, aged 92, of arteriosclerotic heart disease.

Arthur Silas Porter*, Salem, who graduated at Loyola University School of Medicine in 1916, died August 25, aged 81.

Chester Arthur Price*, Chicago, who graduated at Eclectic Medical College, Cincinnati, in 1919, died October 1, aged 62, of coronary occlusion. He was a member of the staff of St. Bernard's Hospital.

Nathan S. Scheffner, Chicago, who graduated at the Chicago Medical School in 1918, died December 20, aged 63.

William F. Steuber*, Elmhurst, who graduated at Northwestern University Medical School in 1942, died December 31, aged 53. He was a member of the staff of Memorial Hospital of DuPage County, Elmhurst.

William Thomas Stickley*, White Hall, who graduated at the University of Illinois College of Medicine in 1931, died September 5, aged 58, of coronary disease.

Ralph E. Talbott*, Oak Park, who graduated at Rush Medical College in 1935, died January 7, aged 50. He was clinical assistant professor of psychiatry at the University of Illinois College of Medicine.

Anna Weld*, retired, Rockford, who graduated at the University of Michigan Medical School in 1907, died December 2, aged 90. She was one of the first women physicians to be admitted to the American College of Physicians. She was a member of the "Fifty Year Club" of the Illinois State Medical Society.

Minor E. White*, Kankakee, who graduated at Loyola University School of Medicine in 1918, died December 26, aged 69. He was a specialist certified by the American Board of Otolaryngology.

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EDITOR'S DESK (Continued)

chine's gamma radiation is equivalent to a 3 million volt X-ray source. Conventional radiation is in the 250,000 volt range whereas supervoltage radiation is in the million or more range.

The Arthritis and Rheumatism Foundation reports 276 treatment centers now in operation throughout the country. One is in Chicago. Seminars for clergymen have been held at three of our state hospitals. The purpose of these clinics is to acquaint ministers, priests, and rabbis who minister to the mentally ill with the nature of such disturbances and to emphasize the value of the spiritual contributions made by members of the clergy.

Standard birth and death registration statistics have been collected for many years all over the nation and the information provided is used by health and welfare agencies and other groups. The need has long been recognized for comparable, reliable data on marriages. Recently the Public Health Service announced that The National Office of Vital Statistics will adopt an improved system of collecting marriage statistics. These figures will make known certain facts about new families in the 29 participating states and four territories. Such data are needed for community planning and will help heirs and others to locate marriage records. Illinois is not one of the co-operating states.